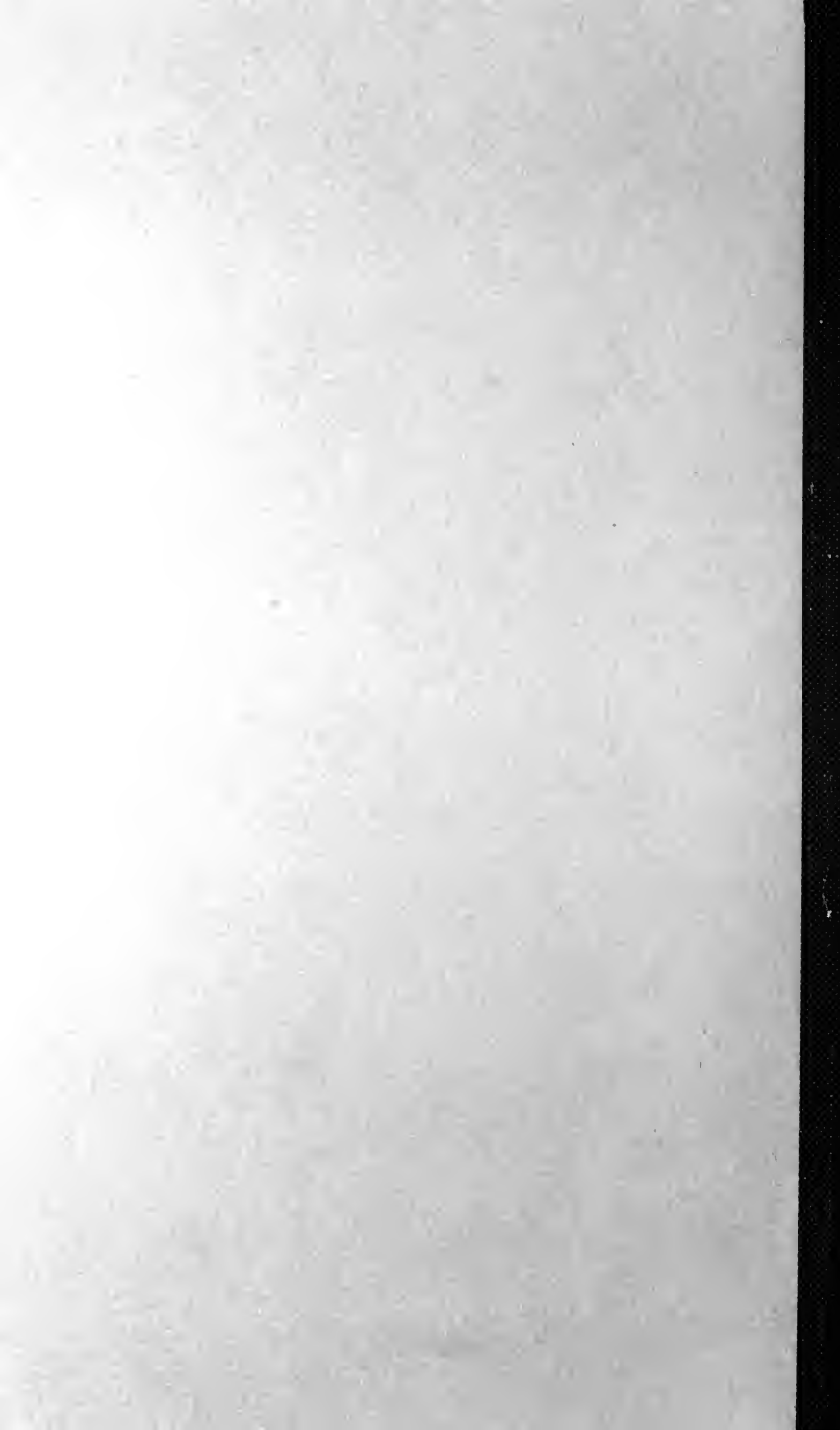


Royal Geographical Society of  
Australasia. South Australian Branch  
Proceedings  
1904/06

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PROCEEDINGS  
OF THE  
Royal Geographical Society  
OF  
Australasia:

SOUTH AUSTRALIAN BRANCH.

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SESSIONS 1904-05—1905-06.

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*VOL VIII.*

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The Council desire it to be understood that in giving publicity to the  
Papers read before the Society they accept no responsibility  
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1906.

# Royal Geographical Society of Australasia.

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## SOUTH AUSTRALIAN BRANCH.

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THE object of this Society is to diffuse a knowledge of Geographical Science, the study of Physical Geography, and especially the completion of the Geographical Exploration of the unknown and imperfectly known parts of Australia :

1. By Lectures given during the winter months by its own members or by others competent to speak with authority on the subjects considered ;
2. By the collection in its Library of Geographical Literature from all parts of the globe ;
3. By the publication from time to time of its Proceedings, containing Reports of the principal Lectures.

This Society has recently acquired by purchase the world-renowned collection of Geographical, Historical, and Scientific books, known as the "*York Gate Library*," which will shortly be housed in new rooms, especially built for the purpose, adjoining the Old Institute Building.

The annual fee of 10s 6d. entitles a Member of the Society to daily access to the valuable Library at the Old Institute Building, North Terrace, which is open from 9.30 a.m. till 4 p.m.

As no charge is made to the public for admission to the Lectures, and there are considerable expenses in carrying on the operations of the Society, the Council earnestly ask for the interest and co-operation of the public, who can effectively forward the general aims of the Society by becoming Members.

OLD INSTITUTE BUILDING,  
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# Royal Geographical Society of Australasia.

## SOUTH AUSTRALIAN BRANCH.

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HIS EXCELLENCY THE GOVERNOR, SIR GEORGE LE HUNTE, K.C.M.G.

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 Van Senden, E. W.  
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 Wilkinson, W. B., J.P.  
 Wood, Peter



PROCEEDINGS  
OF THE  
Royal Geographical Society  
of Australasia

(SOUTH AUSTRALIAN BRANCH).

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EIGHTEENTH SESSION, 1904-5.

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Council Meetings.

*June 1, 1904.*

Present—Mr. W. B. Wilkinson (Vice President), in the chair, Dr. E. J. Eitel, Messrs. S. Newland, R. K. Thomas, A. W. Dobbie, W. P. Auld, C. L. Whitham, Thos. Gill, E. H. Newman, and T. S. Reed (Secretary).

Formal business transacted.

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*July 18, 1904.*

Present—Sir Langdon Bonython (President), Dr. E. J. Eitel, Mr. W. B. Wilkinson (Vice-President), Messrs. S. Newland, R. K. Thomas, A. W. Dobbie, C. L. Whitham, A. W. Piper, A. M. Simpson, T. Gill, E. H. Newman, and T. S. Reed (Secretary).

A letter was read from the Secretary of the Royal Geographical Society, London, consenting to present duplicates of some of their Arctic slides to this Society, on condition that the Society would lend them if required to any of the other Australian Geographical Societies; and stating that the slides were now being prepared. Resolved that the letter be acknowledged with thanks. The Society to comply with the conditions.

A letter was read from the Hon. Commissioner of Crown Lands, stating that Mr. F. R. George had been appointed to take charge of an exploring expedition, for which Mr. R. T. Maurice had lent camels and equipment. It was reported that Mr. George had already set out on his expedition.

A letter from Mrs. B. Stow, Hog Bay, Kangaroo Island, asked for permission to erect a protective shelter around Frenchman's Rock. It was decided to forward the correspondence to the Government, urging that steps should be taken to provide an effective protection, and suggesting that a wall be placed on the sea side and a roof over the Rock; also stating that the Society withdraws its approval of the suggestion to remove the stone to the Public Library. It was resolved to thank Mrs. Stow for her letter and her interest in the matter.

Mr. Thomas Gill presented fac-similes of original Treaty made between Queen Victoria and Maori chiefs of New Zealand and a Proclamation and other documents relating thereto.

Mr. Tom Coward presented a photograph of a Queensland bottle tree and Mr. J. D. Stone a photograph of J. McDouall Stuart. The donors to be thanked.

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*November 2, 1904.*

Present—Sir Langdon Bonython (President), Mr. W. B. Wilkinson (Vice-President), Dr. E. J. Eitel, Messrs. S. Newland, C. L. Whitham, A. W. Dobbie, W. P. Auld, A. W. Piper, T. Gill, E. H. Newman, and T. S. Reed (Secretary).

A letter was read from Lady Stanley, replying to the Society's letter of condolence on the death of her husband.

The Prince of Monaco wrote, thanking the Society for copies of their Proceedings, and forwarding a series of his own Publications. It was resolved to thank him for his gift.

Mr. J. G. O. Tepper presented a sword, which was said to have been presented to the late Inspector Crombie for his services as officer in charge of a gold escort from Melbourne to Adelaide.

Mr. Wilkinson handed to the Council a Geography by Thomas Keith, published in 1812, which Mr. Jas. Steele offered to the Society. The Council accepted the gift, and directed the Secretary to thank Mr. Steele.

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*February 2, 1905.*

Present—Sir Langdon Bonython (President), Mr. W. B. Wilkinson (Vice-President), Dr. E. J. Eitel, Messrs. W. P. Auld, T. Gill, and E. H. Newman (Hon. Secretary).

A letter was read from Mr. Herbert Basedow, asking if the Society would publish a vocabulary of native words. It was decided to accede to the request, and publish it in the next volume of the Society's Proceedings if funds were available.

The members of the Barclay Macpherson Expedition interviewed the Council. Captain Barclay produced a map of the route of the expedition and the report, and asked that they be forwarded, with photographs taken during the trip, to the Government. The Secretary read the report. It was moved and seconded—"That the report be received and forwarded to the Government as requested." Carried.

The Diary of the Expedition was handed to the Society, to be retained as its property.

It was moved and seconded that the members of the party be thanked and congratulated on their work. Carried.

A photograph of the members of the expedition and the Council was taken.

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*March 20, 1905.*

Present—Sir Langdon Bonython (President), Mr. W. B. Wilkinson (Vice-President), Dr. E. J. Eitel, Messrs. R. K. Thomas, A. W. Dobbie, W. P. Auld, S. Newland, E. H. Bakewell, E. H. Newman and T. S. Reed (Secretary).

A letter was read from Mrs. B. Stow, forwarding a design of the proposed shelter to be erected over Frenchman's Rock, and again asking for the co-operation of the Society. The President and Messrs. R. K. Thomas and C. L. Whitham were appointed a committee to confer with Mrs. Stow and report to the Council.

Mr. Whitham reported that prints of the McDouall Stuart Statue had been hung upon the walls of the State schools throughout the State.

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*May 2, 1905.*

Present—Mr. W. B. Wilkinson (Vice-President), in the chair, Dr. E. J. Eitel, Messrs. Newland, A. T. Magarey, W. P. Auld, A. W. Piper, E. H. Bakewell, T. Gill, E. H. Newman, and T. S. Reed (Secretary).

The Hon. Secretary reported that the sub-committee appointed with regard to Frenchman's Rock had met Mrs. Stow and obtained certain information from her. The matter was referred back to the sub-committee, to which Mr. Newland was added as a member.

Messrs. T. Gill, A. W. Piper, E. H. Newman, and Dr. Eitel were appointed a sub-committee to consider and report on the desirableness of the Society affiliating with the Public Library.

Mr. Magarey moved and Dr. Eitel seconded—"That the Secretary communicate with the kindred Societies in the other States requesting them to co-operate in suggesting to the Commonwealth Government the advisableness of providing a map of Australia, with useful information and statistics for circulation abroad." Carried.

May 31, 1905.

Present—Sir Langdon Bonython (President), Mr. W. B. Wilkinson (Vice-President), Dr. E. J. Eitel, Messrs. R. K. Thomas, A. W. Piper, W. P. Auld, C. L. Whitham, E. H. Bakewell, T. Gill, A. T. Magarey, E. H. Newman, and T. S. Reed (Secretary).

A letter was read from Mr. T. Gill, stating that the York Gate Library was for sale. It was resolved that a cable message be sent to Mr. Petherick, asking him to place the library definitely under offer.

It was resolved that a letter be written to the Public Library Board, asking what accommodation could be provided for the Society in the event of affiliation.

## ATTENDANCE ROLL.

### COUNCIL MEETINGS, 7

Sir Langdon Bonython, M.H.R., J.P.	...	...	...	6
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W. P. Auld	...	...	...	6
A. W. Dobbie, J.P.	...	...	...	3
A. M. Simpson, J.P.	...	...	...	1
Dr. E. J. Eitel, M.A., Ph.D.	...	...	...	7
C. L. Whitham	...	...	...	4
A. W. Piper	...	...	...	5
E. H. Bakewell, J.P.	...	...	...	3
T. Gill, I.S.O., J.P.	...	...	...	6
A. T. Magarey	...	...	...	2
E. H. Newman, LL.B.	...	...	...	7

# ANNUAL MEETING.

HELD JUNE 6, 1905.

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The annual meeting was held in the Society's Rooms, State Bank Chambers, Pirie-street, on Tuesday afternoon, June 6, 1905. The President (Sir Langdon Bonython, M.H.R.) occupied the chair, and there was a good attendance of members.

The financial statement was read by the Honorary Treasurer, Mr. Thomas Gill, showing that the income for the year was £128 5/, and after payment of all expenses the balance in hand was 15/5.

## THE ANNUAL ADDRESS.

The President, in delivering his annual address, said:

Since the last annual meeting, which took place on Friday, May 27, 1904, the Council has held seven meetings, and the names of new members have been added to the roll of the Society.

Three lectures have been delivered during the year—one on August 15, on "Traits of Chinese Character," by the Rev. Dr. Eitel, M.A., Ph.D.; another on November 18 by Rev. A. N. Marshall, on "Canada, Our Lady of the Snows;" and the third on March 2 by Captain Barclay, on "The Barclay-MacPherson Expedition." The lectures were full of interest, and there was a large attendance at each.

Additions have been made to our library and museum. They contain books of value and objects of interest, but neither is growing as it should do. Here is an opportunity for the generous benefactor to make the library and museum worthy of the Society.

For years past the Society has been urging the desirability of action being taken to preserve a very interesting historical memorial known as Frenchman's Rock, which exists at Hog Bay, Kangaroo Island. The most effective way to arrest the progress of decay arising from exposure to the elements is to enclose the rock in a substantial structure.

This it has now been decided to do, and a local committee, with Mrs. Stow as its energetic Secretary, has been formed to carry out the work. A committee of your Council has been appointed to confer with the local committee. The rock is interesting as a memorial of the visit of the French explorer, Captain Nicholas Baudin, to Kangaroo Island, and bears the following inscription: "Expedition de decouverte par le Commandant Baudin sur le Geographe, 1803." It will be remembered that Baudin and Flinders met in Encounter Bay, and that this meeting is the explanation of the name of the bay.

There is not much of the continent of Australia which remains unexplored. But some unmapped country still exists in this State. Its area has been reduced since the last report was presented to the Society.

An expedition equipped by Mr. Ronald MacPherson, in co-operation with Captain Barclay, Captain Langley, and Mr. Miller, and assisted by the Government by the loan of camels, left Adelaide in April, 1904, in order to examine an area hitherto unexplored, approximately bounded on the south by latitude 26 deg., on the west by the Finke River, on the north by the Plenty and Marshall Rivers and part of the MacDonnell Range, and on the east by the Hay River and the Queensland border. Considerable interest attaches to the exploration of this area, owing to the difficulty of access, the numerous large rivers disappearing therein, and the possibility of discovering some trace of the ill-fated Leichardt expedition, all knowledge of that party ceasing at latitude 23 deg. 30 min. south and longitude 144 deg. east, when the expedition was travelling towards the country which the Barclay MacPherson expedition set out to explore. Other objects were to make a complete topographical survey of about one square mile of typical sand-ridge country with a view of assisting Dr. Vaughan Cornish, F.R.G.S., London, in his researches on wave forms, and to look for a possible stock route from the Anacoora bore northwards to the settled districts in the MacDonnell Range country and thence to Queensland. The party, lightly equipped, to be more effective, was absent from Oodnadatta from June 24 until December 5, and in that time accomplished much useful work in the face of great difficulties. The heat at times was very trying, the thermometer for days together ranging from 95 deg. to 114 deg., so that the expedition had to resort to travelling by night and resting by day. On account of the great heat, and the difficulty of obtaining water, a lot of valuable stores, personal effects, and a good collection of native curios had to be abandoned. The nature of the country was also against the expedition, high sandy

ridges abounding. On some nights the explorers traversed scores of these ridges, many of them so steep that it was not easy to find crossing-places. It was with much difficulty that the party on their return journey reached Mount Anacoora, where there was a camp with provisions and water. They had for days seen the danger of their supplies giving out, and having lightened the loading of the camels they made all haste, and when in sight of Anacoora used almost the last drop of water they had. It stands to the credit of the explorers that in spite of great difficulties they accomplished much of the work undertaken. They traversed the unmapped country from south to north, and from north to south, by different routes, and the northern portion from west to east, and back, discovering several new rivers, and adding many miles of survey to others. They made a topographical survey of 640 acres of typical sand ridges, and found a possible stock route from Anacoora, where there is a very successful bore, to Arltunga, and thence to Queensland. No trace whatever was found of the Leichardt party, and the members of the expedition, in a report on their work, express the opinion that had Leichardt and his companions entered this territory they could not, equipped as they were, have reached as far to the westward as the routes which Messrs. Barclay and MacPherson travelled.

Early in 1904 Mr. R. T. Maurice kindly placed his camels and outfit at the disposal of this Society for the purpose of exploring and prospecting the little-known country north of the Nullabor Plains to the Western Australian boundary. The Government were approached with a view of securing a competent leader and prospectors. Under the charge of Mr. F. R. George a party left Fowler's Bay in July, and returned in November. The full reports and plans of the trip are not yet completed, but will shortly be available, together with the journal which Mr. George kept on behalf of this Society. Unfortunately the primary object of the expedition, viz., the discovery of payable auriferous country, was not achieved, and Mr. George holds out no hope of any payable deposits being found. The country proved so barren of metalliferous deposits that the party returned earlier than was at first contemplated. Generally, Mr. George's reports are confirmatory of other travellers' experiences in these parts as to the scarcity of water, the arduous nature of the travelling, and the lack of mineral deposits.

It is impossible to refrain from some allusion to the story told in the report issued early this year by Dr. Roth, the Chief Protector of Aborigines in Queensland, concerning the treat-

ment of the blacks in Western Australia, which he had been commissioned to investigate. It was a report which no humane person could read without pain, for while it was admitted that the squatters and settlers generally were kind to the natives, the conduct of the native police force towards aboriginal prisoners, and generally the treatment of the aboriginal and half-caste population, whose services were employed under contract in the pearling and other industries, often left much to be desired. The treatment of prisoners was described by Dr. Roth as disclosing "a most brutal and outrageous state of affairs," while the indentured laborers, male and female, were shown to have been apprenticed at too early an age, to have no legal claim to wages or education, and to be liable to dismissal at the pleasure of their employers, to swell the wandering remnant of a dying race, whose condition must under any circumstances be pitiable. It is fortunate that, judging from the tone of a recent debate in the House of Lords, the Government and people of Western Australia are not held responsible by public opinion at home for the scandals referred to. It seems to be recognised that Dr. Roth's appointment as Commissioner was not the result of any outward pressure, but was the voluntary act of a Government anxious to have a matter which had been the subject of ugly rumors for a very long time probed to the bottom. It is also satisfactory to learn that in the settled portion of the State actual physical cruelty rarely occurs, and that it is chiefly, or only in the unsettled districts of the north, that "cruelties and abuses" abound. Fortunately, also, as the Commissioner shows, these wrongs can be "largely remedied by proper legislation, combined with firm departmental supervision." The difficulties arise chiefly from the great extent of country and the scattered nature of the population. But it is still possible to place all contract labor under strict regulation, to bring under firm control the conduct of the police, and, above all, to provide reserves where the natives could be sheltered and their children taught the rudiments of decency and civilisation.

While on this subject a reference to the lately published "Northern Tribes of Central Australia," by Professor Baldwin Spencer and Mr. F. J. Gillen, Sub-Protector of Aborigines in South Australia, has a certain appropriateness. No service could be of greater value to ethnological science than that which these gentlemen have rendered by their study of the habits and ways of thought peculiar to a race which is said to be the oldest on earth, and which represents mankind as it was in the Stone Age. It would be interesting to quote



from this book something about the practices, the rites and ceremonies and customs of the tribes inhabiting the territory which lies between the MacDonnell Ranges and the Gulf of Carpentaria. But time precludes anything more than a reference to what Professor Spencer describes as his main object in making the journey at the instigation of British scientists and students of mythology. He has gathered evidence bearing on a question long debated by two opposing schools of thought, represented by Mr. Andrew Lang and Mr. Frazer, the author of "The Golden Bough." Professor Spencer believes that this evidence shows that the religious idea is not innate, but evolved from an earlier phase of psychological development. In other words, he thinks we have in the blacks of the Far North the spectacle of an absolutely Godless community—a phenomenon whose existence Mr. Lang in his "Making of Religion" had disputed. They are said to have no religion, no belief in any deity, and their supernaturalism, whatever form it might, if left alone, at some future age assume, does not at present extend beyond a belief—(1) in magic, by which the forces of nature may be controlled; and (2) in spirits, which may or may not be mischievous, but which include nothing comparable with a benevolent deity, or a malignant devil.

As a region in which Australia is peculiarly interested the Antarctic zone claims the first place in what may be called the foreign chronicle of geographical research. And of all parts of the world which have lately been explored the Far South furnishes the most valuable material for scientific study. Nature at best surrenders her diminishing store of secrets jealously, and apart from what has been accomplished in the region named, the harvest in the shape of discoveries reaped by explorers has not been very abundant. With the return to civilisation of Professor Otto Nordenskiöld's Swedish Expedition, Dr. Drygalski's German Expedition, Dr. Charcot's French Expedition, and Commander Scott's British Expedition, the year 1904-5 may be said to have witnessed the close of the Antarctic campaign which began some four or five years ago. By following in the track of the famous Challenger, Dr. Drygalski and his party in their vessel, the Gauss, after touching on Possession Island and on Kerguelen, and after spending a winter in the irresistible embrace of the ice, found confirmation of what had been suggested by many previous explorers—that there is practically a continuous coastline running from Victoria Land to a great distance westward—almost as far as the meridian of the Cape of Good Hope. That the South Pole is surrounded by land for an immense distance

on every side there has not for years past been much doubt, but whether it is continuous land, or a collection of large islands intersected by narrow straits and inlets, such as are to be found in Patagonia and elsewhere north of the Antarctic, the future must determine. It is something if the year can show such gains to science as those accruing from the researches of Professor Otto Nordenskiöld, the Swedish explorer, who has shed additional lustre on the name borne by his more famous relative. Professor Otto may claim by his recent researches to have demonstrated what before was only suspected, that in the Antarctic region, as in the Arctic, there was once a warm climate, and that the Antarctic lands were formerly connected with South America. Fossilised flora of the jurassic period, identical with the jurassic flora of more tropical zones, was discovered by the Swedish expedition, thus realising the expectations of those scientists who, like Dr. Blanford, were sanguine that indications would be found of a flora which must once have flourished luxuriantly throughout the Antarctic zone. It is evident that prior to the glacial epoch the temperature of the earth's surface must have been much higher than it is now. In the Arctic region traces of tertiary plants have been discovered, and even as far north as Smith's Sound plants have been found similar to those existing in Europe and North America; and Mr. Skottsberg, the botanist with the Swedish expedition, reports that notwithstanding that the ground within the Antarctic zone is frozen almost all the year round, the vegetation that still survives in the shape of mosses and lichens would be more abundant if it were not consumed by the penguins. The meagre particulars yet available do not enable more to be said about Dr. Charcot's French expedition than that it has been exploring with a good deal of success the region south of the Belgica Strait and around the Palmer Archipelago. But the most valuable results in the way of Antarctic research were those achieved by our own countryman, Captain Robert Scott, during the two years or more that the Discovery lay under the shadow of Mount Erebus. Until he and his scientific staff worked out as thoroughly as the circumstances allowed the configuration of the Antarctic continent, scarcely any contribution had been made to our knowledge since Sir James Ross, upwards of sixty years ago, found his way barred by a great ice-barrier, with a face rising from 100 ft. to 200 ft. above the sea level, and extending for a distance of 400 miles. Captain Scott was able to confirm Ross's description of this obstacle as a frowning wall of ice which nothing could penetrate or dislodge. Passing the barrier the expedition discovered land

at the eastern end, to which the name of King Edward's Land was given. After a brief sojourn there Captain Scott entered an inlet in the barrier itself. The general result of his observations inclines him to the belief that the barrier is nothing but the termination of a stupendous glacier, the accumulated washings of ice and snow from the surface of a great frozen land, which, larger than Europe, is now practically demonstrated to exist around the South Pole. In other words, it is the edge of an enormous ice-field distinct from the continent itself, and, as Captain Scott believes, rests—the greater portion at least—on water and not on land. At the meeting of welcome in the Albert Hall, London, in November, a special Antarctic Pole medal was presented to Captain Scott by Sir Clements Markham, President of the Royal Geographical Society, and this was followed by the presentation of a gold medal from the Philadelphia Geographical Society for "eminent geographical research." As Mr. Choate happily said, the tribute rendered to Captain Scott by his own countrymen would not be complete without a word from the other side of the Atlantic. As Englishmen aspired to plant the Union Jack on the South Pole, so with a representative so experienced and intrepid as Commander Peary, it was no vain hope which the people of the United States cherished of seeing the stars and stripes waving over the North Pole. Commander Peary has indeed already embarked on this undertaking, having in March, **this year, started on a fourth voyage** to the Arctic Circle in a vessel of his own design. He proposed to establish a sub-base at Cape Sabine, and then to make for Grant Land. Thence, if all goes well, in February next, with a small party, which will be followed by a larger one, he will make a swift dash for the North Pole over the 300 miles or thereabouts which separate that goal from the nearest point to it yet reached. The expedition is interesting if only because it is the first which has had the assistance of wireless telegraphy. The object of the Arctic expedition which has left Norway more recently in the Belgica, under the personal leadership of the Duke of Orleans, who will have the assistance of Lieutenant Gerlache, is less ambitious. It is not to reach the North Pole, but after reaching the shores of Franz Joseph Land to ascertain whether a new channel cannot be found, through which to push northward. The venture is a hazardous one, owing to the strength of the currents and the force with which the ice-pack is driven down, and it will not be forgotten that this obstacle was fatal to Leigh Smith's Eira, which was sunk off Cape Flora, and to the Duke of Abruzzi's vessel. As it is, the past year has not been without

its catastrophe in the loss of Baron Toll's new Siberian expedition. A letter in the baron's handwriting, declaring that his provisions had been exhausted, was found on Bennett Island by Lieutenant Kollchalk's relief party, who returned in March last impressed with a conviction that the last had been heard of the Russian explorer, who had evidently perished with the whole of his companions.

In Africa progress in geographical research has been steady, but not sensational. Captain L'Enfant has been justly applauded by his countrymen in France, and by the Royal Geographical Society, before which he lectured recently, for his exploit in finding, in a channel connecting the Lagone and the Benue, a waterway, navigable in certain seasons by vessels of shallow draught, between Lake Chad and the Atlantic. Another Frenchman, M. Chevalier, from some interesting researches in the same region, has deduced the theory that it was formerly drained by a great river which traversed the Libyan desert and emptied itself into the Mediterranean. The abundant relics of the neolithic age found throughout Northern Wadai and the district adjoining the Bahr-el-Ghazi are, in the opinion of the same competent authority, indications of a prosperous community, probably embracing millions, once settled on its banks. The gradual invasion of the French Soudan by a Saharan climate does not prevent the occurrence of long periods of excessive rainfall at irregular intervals, causing Lake Chad to overflow and flood extensive areas. The Arabs are fully persuaded that the Biblical flood destroyed all the people of Central Africa, and they claim to be able to point to a rock at Ajer-el-Amis, in the Lake Chad region, where Noah struck ground with his ark. Proof has now for the first time been adduced that such a sea as M. Chevalier refers to did actually exist down to Sakoto, forming the southern limit of the present Sahara. The discovery of fossilised sea urchins in the region traversed by M. Chevalier's expedition, of a genus similar to that found in India, is pretty good evidence for a definite connection through Egypt and Arabia with the Indian North-West Provinces. Colonel Elliot, Commissioner for the Anglo-French Boundary Commission between the Niger and Lake Chad, during his official labors last year, accumulated evidence sufficient to convince him of the plausibility of Professor Suess' view, that, while the lower triangle of Africa was elevated from the sea at a very remote geographical age, all the Saharan part of Africa, together with the present Mediterranean Sea, Arabia, and the North-West Provinces of India, formed one vast ocean.

No statement of African exploration would be complete

without a reference to Mr. W. N. McMillan's expedition, which, after a journey through the Egyptian Soudan and the south-western border of Abyssinia found a commercial waterway between the Soudan and Abyssinia in the Baro and Sobat Rivers, navigable in specially built boats. More important, however, have been the researches conducted in Western Uganda, which have demonstrated beyond doubt the former existence of a great caravan route along the banks of the Nile for the transport to Egypt of ivory and slaves, and which have given color to the theory expounded recently by the Rev. A. B. Fisher, at a meeting of the Royal Geographical Society, that it was from this portion of the Uganda Protectorate that King Solomon drew his vast supplies of ivory. Mr. R. N. Hall, than whom there is no greater authority on the subject, has published within the past twelve months his investigations with regard to the ruined temples of Rhodesia, and has shown how, in prehistoric times, a colony of highly civilised people, well acquainted with every branch of metallurgy, established itself in the centre of Africa, and how a great oceanic trade between that continent and Asia was continued for several centuries. There is, of course, a natural disposition to refer all the tokens that survive of the existence of intelligent races to one or other of the known civilisations, but Mr. Hall is far too cautious a scientist to commit himself to the theory broached by others that the extinct city of Zimbabwe was built by some ancient Arabic tribe, with the possible aid of Phœnicians and Israelites. Perhaps we should hear more about the mysterious statues and temples of Easter Island and other spots in the Pacific, which must have been constructed by people highly skilled in working stone, if there were any evidence of a race intelligent enough to whom their construction might plausibly be referred. In the present state of our knowledge it would certainly be very hazardous to say that South Africa never possessed an indigenous race capable of building its now ruined temples and cities.

The most notable event in connection with exploration in Asia has been the expedition to Thibet under Colonel Younghusband and Brigadier-General Macdonald, both well-known explorers. The expedition succeeded in entering the sacred city of Lhassa, a feat that had never previously been accomplished. A commercial treaty with Thibet has been arranged, but the value of that treaty is at the present time a matter of uncertainty, because, whilst the treaty has been endorsed by Thibet, it lacks ratification by the Chinese Government, which is the suzerain Power.

In closing I may say that I am glad to notice that His

Majesty the King has taken advantage of the opportunity afforded by the retirement of Sir Clements Markham from the Presidency of the Royal Geographical Society to express appreciation of his able, zealous, and successful services in the cause of geographical science. I would cordially thank the retiring President for many courtesies extended to officials of the South Australian branch.

Mr. H. A. Parsons moved the adoption of the report and balance-sheet. The financial position, he said, was very satisfactory, and made one think with gratitude of the munificent gift to the Society by the late Sir Thomas Elder. The cosmopolitan character of the Society's activities was indicated by the report and by the nature of the lectures given during the past year. The Rev. Dr. Eitel had lectured on China, and there was no greater authority in Australia on that country. The Rev. A. N. Marshall, a Canadian born and bred, had lectured on the land of his birth, and Captain Barclay had lectured on his expedition to the Northern Territory. It was to be hoped some good would result from familiarising the public with that great dependency. It was a matter for regret that year after year the Society's meetings were attended by the same faithful few. All the great ways of commerce had been directly or indirectly opened through the medium of Societies like this one, and he appealed to the commercial men of Adelaide to take a wider interest in its objects. (Applause.)

Mr. G. W. Hawkes seconded the motion. He particularly appreciated the remarks in the President's address about the treatment of blacks in Western Australia. He had sixteen years' experience with the natives at Poonindie, and had found that they were very useful on station property and in cultivating the land. During the early sixties he sold £900 worth of wheat reaped from Poonindie land to Joseph Darwent at 8/6 a bushel, while the wool fetched the highest price realised for years in the western district. When he took charge of the station as a trustee with Sir Samuel Davenport and the late Bishop Short, he found white men in occupation, and he got rid of all of them except a new Superintendent, and employed blacks. When the Governor of the day, Sir James Fergusson, visited the place he saw two bullock teams and two horse teams being worked by the natives, and he remarked, "Why on earth, Hawkes, don't you bring these men to the ploughing matches in Adelaide to show the people what they can do?" He could not act on His Excellency's advice because the stock knew the natives, who, if they had had strange horses to handle in Adelaide with a crowd looking on

would have become nervous, and bad work would have resulted. His experience of the blacks was much in their favor, and he felt great indignation when the Western Australian reports were published.

The motion was carried.

#### OFFICERS.

On the motion of Mr. J. S. Lloyd, seconded by Mr. J. G. O. Tepper, the following officers were elected: Patron, His Excellency the Governor; President, Sir Langdon Bonython; Vice-President, Mr. W. B. Wilkinson; Council, Messrs. S. Newland, R. Kyffin Thomas, W. P. Auld, A. M. Simpson, A. W. Piper, C. L. Whitham, A. W. Dobbie, E. H. Bakewell, and C. H. Harris, and the Rev. Dr. Eitel; Hon. Treasurer, Mr. T. Gill; Joint Hon. Secretaries, Messrs. A. T. Magarey and E. H. Newman; Auditors, Messrs. L. H. Sholl and F. W. Giles.

It was resolved that the Council be recommended to purchase the York Gate Library if it is satisfied that on affiliating with the Public Library the identity of the Society will be preserved, that sufficient accommodation will be provided, and that the income of the Society will be protected.

A vote of thanks was passed to the old officers, special reference being made to the services rendered by the Secretary (Mr. T. S. Reed).

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# PAPER

READ BEFORE THE SOCIETY.

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## Social Life in China.

BY REV. E. J. EITEL, M.A., PH.D.

(Read August 15, 1904.)

The first thing which, as a rule, strikes every European observer of Social Life in China, if he lives long enough among the Chinese to learn to understand their ways, is this, that their whole mental and moral attitude, with regard to the simplest elements of social intercourse, is the very opposite of ours. A few examples, taken at random, will suffice to show this contrariety.

When we Europeans go to call on a Chinese gentleman we take off our hats on entering his rooms. He will, as soon as we are announced, put on his cap to receive us respectfully. We Europeans consider it a natural thing to express our goodwill towards our friends by shaking hands with them. The Chinese consider that a most ridiculous, and, when men thus greet women, a shockingly improper proceeding. The Chinese salute their friends with a graceful bow and shake at the same time their own hands, or, as it may seem, make fists at their friends. As to kissing, they consider it utter absurdity. Even the fondest Chinese mother does not kiss her infant, but rubs her flat nose against the child's face and sniffs at it. Instead of greeting each other with the meaningless conventional formula, "How do you do?" the Chinese go to the root of the matter by asking each other, "Have you eaten your rice?" When speaking of health, they speak of the heart, but mean thereby the stomach, for they consider that mental and physical wellbeing depends on digestion. Whilst we resent prying into personal details, the Chinese consider it the height of politeness to be very inquisitive as to all your



private affairs, and ask your age, whether you are married, what garments and underclothing you are using, and they proceed to examine the texture of every article you are wearing. They imagine that the more we know of each other the better we shall get on together, whilst we assume that familiarity breeds contempt. We consider it a gallant thing for a gentleman to allow a lady to pass before him, and we see no impropriety in husband and wife walking, in public, side by side, or even arm in arm. But these are to a Chinaman outrageous proceedings, for such things are to his mind not matters of mere formality or politeness, depending on the fine feeling of the individual, but a monstrous subversion of the laws of Nature and a denial of the most fundamental social principles. It is a sacred duty for a Chinaman to assert, under any circumstances, the superiority of man over woman. Accordingly, when a Chinaman walks out in the company of his wife, he stalks solemnly in front, and she follows modestly behind at a respectful distance. For the same reason the Chinese have a great aversion against living in a two-storied house, because it might occur that women might be in an upstairs room, just overhead of one in which there are men, and such a contingency would be a violation of the order of heaven and earth. When a Chinaman writes a letter he begins with his signature, and writes vertically instead of horizontally. A Chinese book is opened from left to right, for what we call the end is the beginning, and foot-notes are placed on the top of the page, where they are more conspicuous. There is practically no limit to the contrariety of Chinese and European customs.

But a careful observer of Chinese modes of thought and life soon becomes convinced that this topsy-turvydom is not a matter of mere caprice or accident, but determined by dominant constitutional peculiarities. The question, therefore, is: Where is the point in which European and Chinese modes of thought regarding social life radically diverge?

It is difficult, looking at the bewildering mass of traits of Chinese social life, to single out those which are typically distinctive, and thus to reach the primary point of that divergence of social views. But, reviewing now, after seven years' absence from China, my reminiscences of thirty-five years spent among the Chinese, it seems to me that the most significant and deepest difference, which separates the Chinese as a race from us Europeans, lies in this, that, whilst for us individuality is the dominant factor of intellectual and social life, the Chinese mind habitually subordinates the individual to the interests and dictates of the community to which he

belongs. We Europeans invariably look upon life as a germ of personal individuality. The Chinese are accustomed to look upon life as a common atmosphere for the expansion of that one grand organism which includes Heaven, Earth, and Man in one undivided whole. Our intellect has a subtle atomistic tendency. We are continually making distinctions. We cannot speak of the nature of man, without referring to the distinction of body and soul, matter and spirit. We are ever analyzing, dividing, and subdividing everything, mentally and practically. Look at Australia. The whole Australasian continent is gradually being turned into a number of segregated States, districts, paddocks, each carefully wire-fenced and separated from the other. That is a picture of our mental, moral, and social attitude. You see no such fencing mania in China. We are constantly bent on dissolving what is compound. Scarcely have we got federation, when we would like to tear it up again. Give a Chinese child a doll and that doll will remain intact for years, while a European child will pull it to pieces in no time. The grown-up European looks at heaven, and at once divides the heavens into solar systems. To a Chinaman such a proceeding looks like sacrilege. If we think of the earth we forthwith divide it mentally into degrees of latitude and longitude, into continents, countries, and nations. We are ever erecting partitions. We would partition China, as readily as we divide the whole universe, whilst to the Chinese mind the one idea is as monstrous as the other. The pivot of Chinese thought is the precise reverse of our mode of thinking and reasoning. Their intellect has a decidedly co-ordinating tendency. Their inclination is to think, not in slow induction from observed facts, nor in logical sequence, but by sweeping combinations and generalizing analogies. The fact is, the Chinese have an abiding sense of cosmic wholeness, harmony, and order. They see the spiritual in the material, and the material in the spiritual. Nature and mankind, body and soul, matter and force, substance and form are to the Chinese one indivisible whole. They take an individual, hold him up to the light of reason, and behold in him, as in a transparency, the unity of heaven, earth, and mankind. They decline to dissect everything into its constituent factors. They would not think of partitioning the British Empire, even if they could. They would rather unite Greater Britain, and every other country in the world, in the one organism of the Celestial Empire. They would quietly annex all of us for the benefit of the universe.

It comes, therefore, to this. We Europeans are deter-

mined individualists. The Chinese are born communists. With us the prime motive-power of all progress is the consciousness of self, and the exertion of individual activity and liberty, striving after absolute command over the forces of Nature. With us, the individual is the measure of the universe. Independence and originality is for us the mark of the genius. For the Chinese, on the contrary, all progress depends upon the return of mankind into subjection to universal law. Hence individuality and originality are mischievous forces. Independence spells anarchy. Originality is the mark of the crank. The mark of the genius is conservatism, subordination, humility. Self-limitation, self-effacement, submergence of the individual in the cosmic organism, the State and the Family, is the whole duty of man and the sole aim of Chinese education. The consciousness of self is, in every educated Chinaman, controlled by a sense of the world as a whole. It is the instinctive habit of the Chinese mind to treat men in the mass. So far as any person legally exists in China, it is the Family as a whole, and not any individual. The individual is nothing. The family is everything. Herein I see the deepest fundamental difference which separates our view of the world, and our criticism of life from that of the Chinese.

Can we wonder now, that everything characteristically Chinese seems to us to be queer and perverse? But, I may add, can we wonder, if everything that characterises European modes of thought and action seems to the Chinese mind to be decidedly topsy-turvy? And is it not possible that, instead of assuming that we are, of course, right in our way of thinking, and the Chinese utterly wrong, we ought to make allowance for the possibility, that we are both one-sided, and that there is yet to be found a higher view of life which unites the best of both modes of thought in a loftier and broader view?

But the question suggests itself, how has this divergence of mental attitude arisen? How has it come about, that we are such determined upholders of individualism, whilst the Chinese are equally staunch communists?

It is, I believe, on the side of the Chinese, simply a case of arrested development. This communism of the Chinese is that stage of the universal evolution of social life, which is called patriarchalism, and which makes the family, and not the individual, the basis of all social construction and moral order. The Chinese have remained, with their comparatively early civilisation, in that stage of social life, in which our ancestors, while yet uncivilized barbarians, were some 2,500 years ago. As the Chinese held fast to their primitive

system of writing, using pictorial and phonetic symbols, without resolving human language, as we have done, into syllables, and syllables into alphabetical letters, so the Chinese refrained also from analyzing human nature into its atomic principles, and refused to dissolve the living organism of the social body into an aggregate of individual units. While the Chinese mind, stunted in its growth, cannot comprehend any basis for individual relations apart from the relations of the family, the mental proclivities of our ancestors, on coming into contact with the forces of alien, and especially Roman and Christian culture, caused the current of social progress to run gradually away from the primitive recognition of the supreme importance of the family bond, to a glorification of personal individuality.

The fundamental idea of that Chinese communism is this, that, as Heaven is the superior of Earth, so the Emperor is the head of the whole family of mankind, and, equally so, every individual male parent of a definite family household is the representative of the family, and this family is the principal organised expression of the State. But the supremacy of the male parent rests also on the religious duty of continuing the periodical sacrifices due to the spirits of deceased ancestors. There is, therefore, at the bottom of this system of patriarchy the political necessity of a unitary household as the substratum of the State, and the religious necessity of a central authority of sacred rites. The head of each family is thus invested with the authority of priesthood and control over every member of his undivided family, which may consist of a number of households, every member of which, irrespective of age or sex, has a fixed relation to the family, and is subject to the same patriarchal rule, guaranteed by the State. No one comes ordinarily of age, unless he becomes the head of the family or a mandarin. No one has any property absolutely his own, but all property is held in trust on behalf of the family. And the family patriarch, although endowed with the power over life and death with regard to every member of his family, is himself responsible to the State for the exercise of this power. Moreover, he has as many duties as he has rights. He is held answerable for any obligation or default incurred by any member or servant of his family. Accordingly, any crime committed by any individual becomes a corporate act, for which the whole family is solidarily responsible, and vicarious punishment has its full justification. In a family thus constituted there is no room for personal liberty. None is his own master. No one can claim personal rights. But, at the same time, the common bondage

under which all are placed is not a slavery enforced by the autocratic rule of individuals, but natural law of a system of communism, based on the supremacy of man over woman and of Nature over all.

I must ask you to keep in mind these fundamental characteristics of the Chinese view of social life, if I now proceed to give you a few glimpses behind the curtain of Chinese family life, in order to illustrate the divergences we have observed.

In a European family, the birth of a child is, as a rule, regarded as a happy event, and the joy of parents and relatives is little, if at all, affected by the question, whether the new-born babe is a boy or a girl. In China, where the male parent is the pivot of family life, it is naturally a different matter. The birth of a male child is a cause of rejoicing indeed. Immediately the news of the happy event is communicated to all the members of the family, to the relations of the mother, and to the neighbors all round. Each message is accompanied by a flask of wine, so that the recipients of the good news may be stimulated to drink forthwith the health of the babe. A month later, a great feast is organized, to which all the members and friends of the family are invited, and each returns the compliment of the flask of wine by presents of silver trinkets, such as a bracelet, necklace or toy for the infant.

But, if a girl is born into a family, a mournful silence is observed. No information is sent to relatives or friends. The next door neighbors even may remain ignorant of the event, until perhaps they see the unhappy mother carrying a baby in her arms, or, rather, on her back. No one ventures to offer congratulations. It would be an act of cruelty, for the birth of a girl is, under ordinary circumstances, a misfortune, and, in the case of a first child, a positive calamity. Steps have to be taken to prevent a recurrence of the catastrophe. A common remedy is, for instance, to give to the new-born girl a name expressive of a hope that the next child, to be born, will be a boy. So they call her perhaps Chiú-t'ai, or by abbreviation, A-chiú, which means "Call for your brother." Accordingly, whenever the girl is mentioned or called, a boy is called for. Or they take the further precaution of dressing the little girl in boy's clothes, so that both the mother and the domestic spirits which influence childbirth, should thus continually be reminded of what is expected of them. But if, nevertheless, the next child born into the family is again a girl, more serious steps are taken. If the infant is not, according to previous determination of the parents, drowned, stifled or beaten to death, immediately

after birth, then a fortune-teller, or the oracle in the nearest temple, is consulted, in order to ascertain the cause of the calamity. The first supposition is, that the day of the marriage was unlucky, or that the mother committed some crime in a former life, or that some element of nature or some constellation was in opposition, or that some wicked person exercised the power of witchcraft to spite the family. Commonly also a geomancer is engaged to ascertain, if the family tombs are causing the trouble, being unpropitiously located or injured. In any case, a great deal of expense is incurred, for Buddhist or Tauist priests must be engaged to perform rites of expiation or exorcism, and offerings have to be made at the shrines of various deities, to counteract the occult powers which have worked the mischief. As the Chinese generally are firm believers in the doctrine of the transmigration of the soul, there is a notion current among the common people, that an infant once born as a girl and killed, may again come into the world, being again born by the same mother, and again as a girl. To prevent such a contingency, a mother, having given birth to a baby girl, will rise in a passion and cut off the ears of the infant as a reminder, and beat it to death, while apostrophizing the child in words like these, "You little rascal, I will teach you coming back to be once more born by me! I won't have it! Mind, if you come again, I will deal with you worse than this! So don't forget it, and go somewhere else!"

It is not mere savage cruelty, or the pressure of dire poverty, that instigates such horrible actions. For the Chinese never apply such treatment to male children. There are other motives at work, to uphold the systematic practice of infanticide. There is, to begin with, the notion, that a female child is not properly a member of the family into which it is born, but an alien, for a girl's natural destiny is to pass by marriage into another family. There is, further, the belief that the fortunes of a family depend upon the influence of the spirits of the family's ancestors, whose comfort and goodwill has to be secured by periodical sacrifices, but sacrifices can only be offered by a son, never by a daughter. Hence a family, having no son, must not shrink from any measure whatever, calculated to prevent the birth of a girl, or to hasten the birth of a son. Finally, there is the notion, that if a wife, whose first duty is to provide sons, gives birth to daughters instead of sons, it is her fault, which she must remedy somehow, or else her husband is bound to take a concubine in order to procure a son for her. A wife's position in the family being thus entirely dependent on her giving birth to at least one son, we may well imagine, that she may

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be driven into such a state of mind, that she shrinks not from employing the most drastic measures for obtaining her desire.

But let us assume that a newly married couple have secured the birth of a son, and that, in spite of every care taken to preserve his life, he is taken ill and dies. There is at once the suspicion, that some malign spirit is meditating to take away thereafter also the life of every successive son that may be born into the family. Hence it is thought advisable, to keep that evil spirit in the dark as to what goes on. Supposing, then, that the next child born is happily a boy, the birth is ostentatiously announced as that of a girl, and all the relatives and friends, joining heartily in the deception, send their felicitations and kind enquiries and present, with a sly wink of the eye, their best wishes for the health of the little "girl." Further, the little baby-boy is not only dressed as a girl, but receives also a female name, or, to mislead the evil spirit even more, they give to the child the name of some animal, calling him "doggie or pussy or birdie," or the name of an element (gold, tree, water, fire, earth), not as we use some such names by way of endearment, but with the avowed intention of deceiving those hostile spirits, who are supposed to continually surround and watch all human beings.

Having succeeded in procuring a son and keeping him alive, the next care of the parents is, to secure a wife for him. But the discharge of this duty is not postponed until the little boy has attained to maturity, for who knows whether the parents will in subsequent years be able to afford the expense. Now, the amount of money required for the purchase of a wife depends chiefly upon the age of the girl, for the purchase-money is considered simply to be the due compensation for the trouble and expense involved in rearing her. The more advanced in years a young girl is, up to a certain limit, the more is her purchase-money the equivalent expression of her good qualities. "How much did you pay for your wife?" This question was often put to me by Chinese, who desired to find in the reply, stating the amount of purchase-money, a clue, to judge of the age, beauty, and moral character of my wife. My reply, stating that I paid nothing at all for her, invariably produced a look of contempt, sometimes followed by the enquiry what was wrong, whether she had some serious fault, being a vixen or an old widow.

The very cheapest method of procuring a wife for one's son is, to make with another family a formal contract of marriage for the benefit of two children before they are born, the contract to have effect only in the contingency that the

two children, whose birth is reckoned on, turn out to be, one a boy and the other a girl. Such contracts are frequently made among poor but provident people. Among such people it is further a common practice, that, if a strong and healthy woman has given birth to a son, and is deemed well able to nurse two infants at the same time, a new-born girl is, through a go-between, bought from another family, under a regular legal marriage contract, to be her son's wife. The happy mother then nurses both the children at the same time, the infant bridegroom and the infant bride being reared in the same cradle, like twins, and educated in the same household, until the time comes for their formal marriage. Could there be a better way to secure the slow growth of mutual affection in the hearts of man and wife—so reasons the Chinaman, who takes time by the forelock, and does not believe in postponing, until some future time, what can be done to-day more cheaply.

Among well-to-do people, though the betrothal contract is usually made on behalf of young children, bride and bridegroom, as a rule, do not see each other before their wedding day. To allow young people to choose their partner in life for themselves appears to the Chinese mind not only foolish, but subversive of every sound principle. A Chinaman marries not for his own benefit, but in the interest of the family, and therefore it is for the head of the family to provide a wife for him. Chinese patriarchalism must condemn any other course as subversive of the laws of Heaven and Earth, of the interests of the State and the Family. When all the documentary and ceremonial preliminaries required for a legal betrothal of a young couple, who are generally about fifteen or sixteen years old, have been arranged between their parents by means of paid go-betweens, a lucky day is selected by professional fortune-tellers, who base their calculations on a complicated system of fanciful astrology. The day having been agreed to by the heads of both families, the final ceremonial, which hands over the young bride to her boy-husband is performed. Some fifteen days previous to the day fixed for the wedding, the bride, surrounded by her sisters and female friends, has to spend several hours every evening, weeping and lamenting, to bewail her impending removal from the home of her fathers. Her feelings of affection and filial piety are measured by the amount of tears she sheds, and by the degree of feeling she exhibits in repeating set formularies of lamentation, which she was previously made to commit to memory under the tuition of a female teacher. To the European onlooker, this ceremony appears to be a solemn farce, but to the Chinese it is a serious discharge of a social



duty, which is not dependent on the genuine feelings of the individual, but required as a matter of etiquette by the laws of nature.

A few days before the wedding the bride's trousseau is sent by her parents to her future home. It is made the occasion of a public procession, headed by a band, the musicians and the bearers of the various objects being clad in red jackets and parading through the principal streets, to let the public know the value of the trousseau.

On the day of the wedding, the bridegroom's family send by another procession a red sedan-chair to fetch the bride. The procession consists of a band of musicians, and of bearers of sacrificial offerings, including an orange-tree on which strings of copper coins are suspended, the emblem of fruitfulness and wealth, and some burning tapers, indicative of the bright life which awaits the bride. There are also some presents for the bride's parents. The leader of the procession, the bridegroom's best man, delivers those presents, together with a letter, written on red paper, tinged with gold, and addressed to the bride, requesting her to come. The bride keeps this letter carefully, as it represents her "marriage lines." After some ceremonies, the bride, heavily veiled, and her face effectually concealed by a piece of red silk, is led forth wailing. With some show of force, she is placed in the sedan-chair, in which she is securely shut off from the public gaze. Then the procession starts, the best man preceding, and the bride's brother following the bridal chair. While the procession wends its way to her future home the bride is expected to wail and to address fervent entreaties to the chair bearers to turn back. It is the proper thing, and regard for her reputation compels her to do it. Arrived at her destination, the chair is set down at the house door, from which the bridegroom, dressed as if he were an official of high rank, comes forth. Striking the door of the chair with his fan, he orders it to be opened. Some female servants, who act as bridesmaids, and have been trotting alongside the bridal chair all the way, open the chair, and the bride, completely veiled, steps out. She is placed on the back of a female servant, who must be the mother of several sons. This woman carries the bride across a slow charcoal fire, while another female servant raises above the bride's head a tray containing several pairs of chopsticks, some rice, and a few betel nuts. By this time the bridegroom has taken his place inside the house, in the hall, where he stands on a high stool, to receive his bride, who prostrates herself at his feet and does obeisance to her lord and master. Then, descending from the high stool,

which indicates the superiority of the husband over the wife, the bridegroom removes the veil of red silk, and now for the first time he catches a glimpse of his wife's face. It is, however, still more or less hidden by strings of pearls, which hang from her bridal coronet. Bridegroom and bride now proceed together to the ancestral hall, where they prostrate themselves before the altar, on which the tablets of some ten or fourteen generations of the bridegroom's ancestors are arranged. The spirits of these ancestors are supposed to be present, and a formal announcement of the marriage is addressed to them. Bridegroom and bride then perform sundry genuflections in homage of Heaven and Earth and of the guardian spirits of the household, the ceremonies being concluded by the pouring out of drink offerings for the benefit of the ancestral spirits. Then the happy couple are conducted to the bridal chamber, where meanwhile the orange-tree and the lighted tapers have been deposited on the nuptial couch. After some words of formal salutation addressed by the bridegroom to the bride, both sit down to have their first meal together in the presence of their relatives and friends. On sitting down the bride tries hard to get a portion of her husband's dress under her to sit on, for if she succeeds, it will ensure her gaining the upper hand of him. But the bridegroom does his best to sit on a portion of her dress, with the same end in view. So a friendly struggle ensues, to the amusement of the friends standing all round. While the young couple are partaking of light refreshments, the bridesmaids draw aside the strings of pearls, which veil the bride's face, in order that the bridegroom may at last have an opportunity of seeing her features. To prevent any deception, the rule is that a bride must not paint her face on her wedding day. So the bridegroom now sees her natural face, but it is only for a moment, for the wedding guests must not see it. Nevertheless, they do their best to see what they can see, and freely criticise the appearance and demeanor of the bride. When the repast is over, the bridegroom leaves the room to receive the wedding guests as they arrive. Meanwhile the bride sits in state in the bridal chamber, and all the relatives and friends, as they arrive troop into the room in turn, address their felicitations to her, wishing her many sons, and criticise her personal appearance in her hearing. It is at best a trying ordeal to a modest girl. The bride, as a rule, keeps her face covered by her hands, while the guests, especially after having partaken of wine, make attempts, which are often positive cruelty, to compel her to remove her hands, so as to give them a glimpse of her face. When the wedding

feast is ready, the parents of the bridegroom take their seats at separate tables, and usually in separate rooms, with their male and female friends, as men and women cannot with propriety be seated at the same table or in the same room. The bridegroom takes his seat near his father, but frequently goes about to see that all late-comers are properly welcomed and attended to. When the principal dish is to be placed on the table, the bride carries it with her own hands from the kitchen, and placing it before her father-in-law, assumes the functions of a waiting maid. Filling his cup with wine, she presents it to him with both hands, and gracefully bows. Then, whilst he drinks, she kneels at his feet and twice knocks her head on the ground. Then she proceeds with another dish to the table, where her mother-in-law is seated, and performs here the same acts of homage. When the feast is over, the bride is called upon to partake of some food. On a table at the entrance to the dining-room, some viands are set out, and her father-in-law requests her to take a seat on the east side of this table. Her mother-in-law fills a cup of wine and presents it to her. Before receiving it, the bride rises from her seat, and, kneeling at the feet of her mother-in-law, she does obeisance, by twice knocking her forehead on the ground. This concludes the ceremonial of the wedding day. On the third day, there is another act of worship performed in the ancestral hall, whereupon the bride goes on a brief visit to her own parents, on whom the bridegroom also calls in the course of the same day.

I need not proceed further with this description of Chinese family life. The general principles underlying it, are readily perceived from what I have already said. They have their basis in a reverential regard for ancestry and male descent, whence flow excessive prerogatives, attributed to the male parent, abnormal ill-treatment of female infants, and the general subordination of woman. But, for completeness' sake, I must add a few words with reference to the law of divorce.

We have seen with what solemnity and punctilious reverence for law, etiquette, and religious ceremonial, marriage is concluded in China. It is obvious, all this is very different from the freedom of choice, from the ease and looseness of manner with which marriages are contracted in European society. But the most singular fact is, that, whilst the conclusion of the marriage bond is so strictly hedged in by domestic law and custom, the dissolution of the marriage bond is, in China as easy for the husband as it is in the most advanced State of America for both husband and wife. The

Chinese Penal Code permits the husband to divorce his wife in any of the following seven cases, viz., if she disobeys her husband's parents, if she has no children, if she is dissolute in morals, if she is jealous on account of her husband's attention to his concubines, if she is loquacious or ill-tempered, if she is inflicted with any incurable disease, or, finally, if she steals. Moreover, whilst the wife has no legal remedy whatever, to protect herself from infidelities on the part of her husband, the husband is empowered by the law to put to death his adulterous wife and her paramour, and if he spares her, she is to be sold into servitude.

In view of all this, it may be said, that in China the lot of woman is dreadful. At the moment of her birth, she may be exposed to cruel treatment. As a child, she is looked upon as an alien, and liable to be sold or to be married without any regard to her wishes and feelings. When she is married, she has to obey every wish of her husband and his parents, and when she is a widow, she is dependent on her son. But these severities of patriarchalism are in practical life considerably modified. Certainly, male supremacy has developed in China into a divine right. Equality of rights between the sexes is not even dreamt of by women, and the very thought of it is detested by men as a monstrous rebellion against the dictates of Nature. That triple dependence of woman, on husband, father, and son, is so ingrained in the Chinese mind, that every woman in China not only acquiesces in it, as in a law of nature, but considers it as an indisputable axiom, that she must belong to somebody. But, in spite of all this, the fact stares every careful observer of Chinese family life in the face, that every good and tactful woman in China has, within her sphere of general dependence, as much room for exerting her personal influence, as any woman has in European society.

The restraints of Chinese family law are irksome, chiefly to the bad and ill-tempered among women. The typical Chinaman, while claiming, as a matter of duty, imposed on him by Nature, those prerogatives of manhood, which the law secures for him, is imbued with such a strong sense of equity, that the harshness of the positive law is practically softened and balanced by the recognition of natural rights. Although in public the man takes the precedence in everything, yet in private a virtuous and wise woman is reverently bowed to by every husband, as a general rule. Although polygamy is practically in vogue among the rich, the first wife is even in such households recognised as, and legally held to be, the mistress of her husband's concubines, who are her servants, and

whose children are under her control. Among the laboring classes, the wife has power and influence in her family, in proportion as she contributes by her labor to the family income.

Although women are kept behind a screen at public banquets and theatres, and withdrawn from public life as much as they are withdrawn from politics in most European communities (outside of South Australia, of course), nevertheless manners in China, as elsewhere, outrun laws, and assign to woman a much higher position, than the letter of the law indicates. Chinese literature abounds in names and honors of women, and among the masses there is scarcely any function which they do not perform. Their theoretic exclusion from the throne has not prevented the present Dowager-Empress ruling the whole Celestial Empire according to her sweet will. The position of women in China is not that of a slave, nor of social disrespect, but of recognised dignity and power. She shares the honors of the family as a whole, and her subordinations therein are but part of a system of similar subjections, from which no member of the family is free. The younger brother is equally in the hands of the elder; the elder of the father; the father of his father; who in turn is under ancestral authority. The submission which all alike, in their several ways, accept, is not a mark of tyranny, but of religious unity, a bond of equality and mutual regard, and the source of genuine filial piety.

The crippling of the feet of female children is often referred to by Europeans as a flagrant instance of domestic tyranny. This view is, however, an instance of the incapacity of ordinary Europeans, to understand the workings of the Chinese mind. In the first instance, the practice of crippling the feet of women, is confined to the upper classes of Chinese society. Among the laboring classes, women work like any man in house and field. They carry heavy burdens on their shoulders for long distances, and consequently they require their feet to be left in their natural condition. It is only among the well-to-do people and among those who desire to be regarded as gentle folk, that the practice prevails. The possession of artificially cramped feet is the mark of a lady, however poor or low-born she may be. In this fact lies the whole secret of the popularity of this unnatural practice. Among all classes, both men and women have unbounded respect and admiration for what they call "the golden lilies." This aberration of æsthetic judgment is the result of the national taste for mixtures of finicality and restraint. But there are also prosy practical considerations, which support the practice of foot-binding. A belief exists generally, that

cramping the feet of girls is the most effective means of preventing them gadding about and stirring up mischief, and the most powerful incentive to remain at home, and to rest satisfied with the quiet occupations of domestic still life, which is their natural sphere. But what gives to the practice its strongest support, is the fact, that in China every man, claiming the status of a gentleman, considers it a degradation to marry, as his first wife, a girl who by the natural size of her feet proclaims to the world the fact that she is not a lady. So long as both, men and women, continue to share this view, the practice of foot-binding will continue in force, in spite of all arguments against it. It is not a practice supported by law or even enforced by universal custom, for at court and among the Manchus the practice finds no supporters. It is chiefly maintained by those Chinese women, who themselves have crippled feet and who have themselves suffered the excruciating agonies, the inconveniences and restraints involved. They are the people who zealously maintain the practice and persuade their daughters to submit to it heroically, because they know it is for their best. And the little girls themselves, who spend many sleepless nights in agony and tears, before their feet are accustomed to those tight ligatures, these little girls themselves bravely refuse to have their feet restored to their natural form and size. They are proud of the social distinction involved, and they know, that without such suffering they could not expect ever to reach the position accorded to the first wife of a gentleman. I have known many Chinese families, the parents of which, yielding to the influence of European missionaries, abandoned the practice of foot-binding. But years afterwards, when their daughters had grown up, and no husband could be found for them among the upper classes, and no prospect was left to the girls, except either to descend to the position of a gentleman's concubine, or a laboring man's wife, then to my knowledge the daughters bitterly reproached their parents for having omitted the practice of foot-binding. And the parents themselves regretted then that they had ever yielded to the influence of prejudiced European advice. But there was no remedy for it, for small feet can be secured only, if the ligatures are applied in early childhood.

It is true, it is a most unnatural and painful practice, and in cases, where the gradual tightening of the bandages is not skilfully regulated, mortification may set in and death may ensue. But medical authorities agree, that ordinarily the practice of crippling the feet of children is no more detrimental to health, than many fashions of European society

which are far more prevalent. Very few women in China have brought ailments from this cause into missionary hospitals. As an off-set to this Chinese practice, we may note that Chinese women wear no stays, are neither bedizened nor deformed by fashion, and are, in spite of the comparative restraint of free movement, which "the golden lilies" impose on them, remarkable for dignity and gracefulness in gait and bearing.

There may be a good deal of cruelty and harshness in exacting this submission of Chinese children to such tortures as the crippling of their feet involves, but there is also an overwhelming mass of evidence to show, that the mixture of severity and love, which Chinese parents apply in the training of their children of both sexes, produces a degree of self-denying filial piety, seldom witnessed in European families. Such Chinese filial piety manifests itself in ways that are somewhat peculiar. It is a matter of common occurrence, that, when a man advanced in years has committed a crime, and is sentenced to severe punishment or to death, a son of his voluntarily offers himself to undergo the punishment and to suffer death in his father's place, and such offers of substitution and vicarious punishment are commonly accepted by the Chinese Courts, provided that the son is not the only child of his father. It is an equally common practice for young sons or daughters, when father or mother is seriously ill and no other remedy avails, to cut a piece of living flesh out of their own bodies, to cook it, and to give it to the patient to eat, in the expectation that this medicine will work wonders. When a father or mother is about to celebrate the sixtieth birthday, their children present father or mother not only with their felicitations and good wishes for many a happy return of the day, but at the same time also with a beautiful coffin. Chinese schoolbooks abound in historical narratives of typical examples of filial piety. One child laid himself on a frozen fishpond, until through the warmth of his body the ice gradually melted, and he was able to catch some fish for which his mother had a fancy. Another stretched himself out on his parents' bed every evening with bare arms and legs, to let the mosquitoes have their fill on him, before his parents retired to rest. Another, though over sixty years old, played like a child to amuse his aged father and mother. Love between parents and children was from of old so intense among the Chinese, that, more than 2,200 years ago, the Chinese knew that subtle power of telepathy, which with us is a matter of recent discovery. The mother of the philosopher Mencius was once in sudden and very serious distress, and urgently

needed the immediate presence of her son, who was far away. Having no one to send for him, she cut her finger so that the blood flowed. Her son, at a distance, immediately felt the pain which his mother suffered, and rushed home to comfort her.

The depth of domestic affection, of filial love, of parental care, which distinguishes the members of this colossal aggregation of families, called China, is something almost unintelligible for us, who, in our haste to constitute a social order, in which every personal relation shall be based on the free and intelligent agreement of individuals, almost forget, that we are building up the rights of the individual on the ruins of the family, and that we are developing social equality, woman's rights and individual liberty, at the expense of domestic affections and filial piety.

But with all this predisposition for the cultivation of family life, there is combined in the Chinese mind a prosy matter-of-fact way of looking at things, which makes the Chinese appear to be lacking as regards emotional excitability. Nothing is harder for a European preacher, be he ever so gifted a speaker, than to rouse the emotions of a Chinese audience. The founder of the China Inland Mission, a man of unusual power of personal influence, was once speaking to a Chinese crowd that surrounded him, listening to his flights of oratory with apparently wrapt attention. They seemed spellbound by his eloquence, but occasionally whispered to each other as if puzzled by something. So he invited them to ask any question. Thereupon an old man who had seemed specially attentive, said, they were all very much interested in what he had been urging, but the principal point that puzzled them was just this—they had noticed, that he had two buttons at the back of his coat, but they could not make out, where the buttonholes were, corresponding with them, and what was the meaning of those two buttons.

Whilst comparatively dry, prosy, and unemotional, the Chinese are extremely susceptible to fear of the mystic power of witchcraft, sorcery, and magic incantations. This popular dread of occult powers saved me once from an awkward predicament. I was walking through an inland city, the inhabitants of which, having rarely if ever seen a European, were somewhat excited on account of my presence. I lost my way in the narrow streets, and a crowd of larrikins, following at my heels, began to hoot and to throw mud and stones. I hastened my steps, to escape from the city, but a number of young ruffians took a short cut, and I found myself hemmed in



from in front as well as behind, whilst they pelted from all sides. So I retreated into a corner, and, imitating the way in which Buddhist priests perform their magic incantations, repeating Sanskrit formulæ accompanied by mystic finger play, I solemnly drew a circle on the ground around me with my umbrella, made some signs in the air with my fingers, and, as I could not remember in the excitement any Sanskrit, I recited a German rhyme that came into my head—

Gang mer net über mei Aeckerle,  
 Gang mer net über mei Wies,  
 Oder i prügel di wäckerle,  
 Oder i prügel di gwis.

The effect was instantaneous and like magic. They dropped their missiles, opened a way for me, bowed politely, and asked me not to do them any harm. I assured them that no harm would come to them, if they did not molest me, and I was allowed to depart in peace.

Having thus sketched the effects on character which the Chinese patriarchal family theory has produced, all that remains is to indicate the deep religious basis on which Chinese family life is built up.

The foundation of Chinese patriarchalism rests on the deep ground of that collectivistic form of national sentiment which, as I have stated above, distinguishes the Chinese as a race from us Europeans, viz., that devotion to the Family as the social and political unit, from which flows that natural piety of which filial and parental love are the poles, and reverence for age the typical form. The command of the Bible, "Honor thy father and mother, that thy days may be long in the land," was recognised from of old by the Chinese people, not merely in the sense in which we take it, as a moral and religious injunction for the individual, but as the law of national preservation. It is in China, that this national sentiment has made its deepest mark on manners and life, and has become the central principle of religious thought. In all the various systems of morality, philosophy, and religion, that have proved congenial to the Chinese mind, in Confucianism, in Taoism, and even in Chinese Buddhism, the basis of authority is parental. Confucianism is but a system of morality, Taoism is a mystic tangle of philosophy and superstition, whilst Chinese Buddhism is but a Nihilistic foreign parasite on the religious body. The principal features of strictly religious life in China are summed up in the statement—the Emperor worships Heaven, the officials worship the Emperor, and the common people worship their ancestors, all

forming together virtually one family. This is the sum and substance of all specifically religious thought in China. It is the family idea that has proved itself in Chinese history a force of evolution which produced not, as it would have been in our case, an internecine strife of various religious denominations, but a uniform system of national religious education, rites, poor laws, joint-labor, local self-government, and mutual aid, a force which expanded the family idea so as to cover all public duties. The religion of the common people is mainly a development of the sentiment of filial piety, leaving to each individual the liberty of assimilating with his ancestral worship as much or as little of Confucianism, Taoism, and Buddhism as he may find congenial. Whilst we Europeans, by force of our individualism, have in the course of time made religion a matter of the individual, relegated family life to the background of society, and gone on more and more separating religion from family and school life, the religion of the Chinese people is to the present day so domestic, that their ancestral rites are simply an extension of their home associations. Their public worship is family worship. The symbolic tablets on the altar of the ancestral hall, bring the living members of the family into close intimacy with the spirits of their deceased ancestors. There is no idolatry there. But before those plain wooden tablets, on each side of which the posthumous title of the respective ancestor is inscribed, offerings of frankincense, wine, and food are made on the first and fifteenth day of every month, and on the occasion of every public and domestic festival. It is supposed that the ancestral spirits are invisibly present and comforted or propitiated by these offerings. Before this altar, simple forms of worship consecrate the happiness of the home, the purity of marriage, the traditions of duty and love. Thus it is that the ancestral shrine holds the first place in Chinese religion. There is, in fact, the family sanctuary. Here the youth assumes the virile cap. Here marriage bonds and betrothals are announced. Here scholars are invested with office, and tributes paid to public worth. In these halls are conducted all acts of communal government, the reading of wills, the auditing of accounts, the distribution of property, the settlement of disputes, trials, and judgments. Here even dramatic scenes are enacted for the community, and plays performed for the children. In short, the ancestral hall is the open conscience of the people, where all duties and joys and griefs are laid bare to the wisdom and order of the invisible world of ancestral spirits whose presence is realised by childlike faith.

The homage thus paid by the Chinese to their ancestors

has elements in it that deserve respect from us as believers in the continuance of life after death. It is more than mere superstitious and misdirected spiritualism. It is the consecration of the Home in its substance as filial piety and parental care. It is spiritual worship, resting its hopes of the unseen world on family affection. It is a godless religion, but better than irreligious infidelity, or unreasoning idolatry. It is the apotheosis of domestic duty, based on a clear recognition of the sanctities of filial and parental relations. It is this domestic religion which has preserved the Chinese nation as an integral whole, guarded it against that tyranny of priest-craft and caste which has proved the curse of India, as well as against that lawlessness of individualism which is the peculiar curse of European social life. It is this domestic religion which has endowed the Chinese people with a remarkable steadiness of purpose and a general morale unsurpassed for industry, frugality, perseverance, self-restraint, and mutual co-operative helpfulness. It is time to ask whether our boasted European civilization, with its perpetual warfare of religious denominations, with its reduction of religion to the sphere of individual opinion, with its decay of family religion and family life, with its steady increase of illegitimacy and libertinage, with its decreasing respect for parental authority and growing independence of the young, is so vastly superior to Chinese patriarchalism, that we have nothing to learn from the latter. It is not too much to say that the Chinese are holding forth, under whatever imperfections a well-nigh forgotten ideal. Nor can we resist the conclusion that, if the tree is to be judged by its fruit, Chinese patriarchalism, having, in spite of its defects and cruelties, produced results which compare in some respects favorably with those of our more advanced civilization, has its good qualities. This lecture will not have been in vain, if the comparison of Chinese and European modes of thought and life, which I have put before you, has suggested to you the idea, that perfection is neither in the restraints of Chinese communism, nor in the unrestraint of European individualism, but that we have to seek yet for a higher plane of thought and life. It is my conviction that this higher plane would be reached by a better apprehension of that synthesis of communism and individualism which Christianity presents, and which it is so difficult for us to grasp rightly and fully, owing to our individualistic and separatistic idiosyncrasies.

In conclusion, I have to state that, in the above descriptions of Chinese social and religious ceremonial, I have made free use of the best existing handbooks, such as those of Charles Piton, Dyer Ball, and Samuel Johnson, and of some former publications of my own.

PROCEEDINGS  
OF THE  
**Royal Geographical Society**  
**of Australasia**

(SOUTH AUSTRALIAN BRANCH).

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NINETEENTH SESSION, 1905-6.

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**Council Meetings.**

*June 20, 1905.*

Present—Sir Langdon Bonython (President), Mr. W. B. Wilkinson (Vice-President), Dr. E. J. Eitel, Messrs. S. Newland, R. K. Thomas, A. W. Dobbie, W. P. Auld, A. W. Piper, E. H. Bakewell, A. T. Magarey, T. Gill, E. H. Newman, and T. S. Reed (Secretary).

In accordance with the resolution passed at the annual meeting on the 6th inst., Mr. Gill reported that a cable message had been sent to Mr. Petherick with reference to the purchase of the York Gate Library, and that a reply had been received. After discussion, it was resolved that the President should confer with the President of the Public Library Board and ask for a definite reply to the Society's enquiry for accommodation.

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*July 4, 1905.*

Present—Sir Langdon Bonython (President), Mr. W. B. Wilkinson (Vice-President), Dr. E. J. Eitel, Messrs. R. K. Thomas, S. Newland, A. W. Dobbie, A. W. Piper, W. P. Auld, E. H. Bakewell, A. T. Magarey, E. H. Newman, and T. S. Reed (Secretary).

A letter was read from the Secretary of the Public Library, stating that the sub-committee appointed to consider the matter of the suggested affiliation of the Society with the Public Library and the accommodation that could be provided, had decided to make certain recommendations, which it was believed would be approved by the Board.

After discussion it was decided that this Society affiliate with the Public Library on the terms of the letter.

It was also resolved that a sum of £1,500 should be voted for the purchase of the York Gate Library, and that in the event of the purchase, the Public Library Board be asked to make provision for its accommodation. The Hon. Treasurer was authorised to obtain subscriptions for any sum required beyond the £1,500 voted.

The Council resolved to place on record in its minutes its high appreciation of the service rendered by the late Sir A. C. Gregory to Australian exploration, and in the advancement of geographical science. The Queensland Society to be notified of this resolution.

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*July 25, 1905.*

Present—Sir Langdon Bonython (President), Mr. W. B. Wilkinson (Vice-President), Messrs. R. K. Thomas, S. Newland, A. W. Dobbie, C. L. Whitham, A. W. Piper, W. P. Auld, A. T. Magarey, T. Gill, E. H. Newman, and T. S. Reed (Secretary).

The President reported further negotiations respecting the York Gate Library. The Agent-General had offered, on behalf of the Society, £2,000 in South Australian Government stock, and the offer had been accepted. The Agent-General had arranged for a catalogue of the books added since the printed catalogue was issued to be prepared by the Librarian who had had charge of the library, and for the checking, packing, and shipment of the books. Messrs. Elder, Smith, and Co. had generously promised to ship the books free of freight.

The Honorary Treasurer reported that in accordance with the authority given at the last Council meeting, he had obtained towards the cost of the York Gate Library the following subscriptions: R. Barr Smith, £100; J. Darling, £50; J. Gordon, £50; T. R. Scarfe, £25; A. M. Simpson, £25; H. Rymill, £25; Sir Langdon Bonython, £25; G. Wilcox, £25; Wm. Milne, £20; C. H. Goode, £10; R. K. Thomas, £5 5/; H. Scott, £5.

Mr. A. W. Dobbie moved and Mr. R. K. Thomas seconded—"That the action of the President and the Treasurer in purchasing the York Gate Library be ratified." Carried.

The Honorary Treasurer suggested the desirableness of an addition being made to the Institute Building for the libraries of this Society and of the Royal Society, and suggested that members of the Council should, with the Public Library Board, wait upon the Government and ask that rooms be built. It was decided that the Council join in a deputation to the Government.

It was resolved that thanks be accorded to the subscribers towards the purchase of the York Gate Library, and that they be made life members of the Society.

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*September 8, 1905.*

Present—Sir Langdon Bonython (President), Mr. W. B. Wilkinson (Vice-President), Messrs. A. W. Dobbie, W. P. Auld, T. Gill, E. H. Newman, and T. S. Reed (Secretary).

It was reported that members of the Council had joined in a deputation to the Premier asking for accommodation to be provided for the Society; and that the Premier had replied that the Government would comply with the request if the finances permitted.

The conditions of affiliation with the Public Library Board, which were forwarded by the Board for the Council's consideration, were considered and altered. The Secretary was directed to return the amended conditions, and stated that the Society would be glad to be represented on the Public Library Board.

Mr. Gill presented some interesting charts that he had obtained from England. He was thanked for his interest in the Society and for his gift.

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*December 8, 1905.*

Present—Sir Langdon Bonython (President), Mr. W. B. Wilkinson (Vice-President), Dr. E. J. Eitel, Messrs. S. Newland, A. W. Dobbie, C. L. Whitham, A. W. Piper, W. P. Auld, T. Gill, E. H. Newman, and T. S. Reed.

The Secretary reported the arrival of the York Gate Library, which was at present stored in the crypt of the Art Gallery, and that the books had been insured for £1,000.

A circular was read from a committee appointed by the last Geographical Congress, held at Washington, suggesting a scheme for the mutual recognition of members of the Geo-

graphical Societies throughout the world, and the extension of privileges to visiting members. The scheme was approved.

The Queensland Society invited the Council to take part in the ceremony intended to be held next June in commemoration of the twenty-fifth anniversary of the foundation of the Society. The Secretary was directed to reply that if it was possible the Council would be glad to be represented.

Amended conditions of affiliation submitted by the Public Library Board were considered.

It was resolved—"That the books in the York Gate Library be dedicated for the perpetual use of the public." A committee was appointed to modify the conditions, with power to act in the matter.

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*December 18, 1905.*

Present—Sir Langdon Bonython (President), Dr. E. J. Eitel, Messrs. S. Newland, R. K. Thomas, A. W. Piper, A. W. Dobbie, W. P. Auld, A. T. Magarey, and T. S. Reed (Secretary).

The Council decided to insure the York Gate Library for £3,000.

A letter received from the Public Library Board with amended conditions was read and discussed.

Resolved that the conditions of affiliation as submitted be accepted.

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*May 4, 1906.*

Present—Sir Langdon Bonython (President), Mr. W. B. Wilkinson (Vice-President), Dr. E. J. Eitel, Messrs. A. W. Dobbie, W. P. Auld, E. H. Bakewell, A. M. Simpson, T. Gill, A. T. Magarey, E. H. Newman, and T. S. Reed (Secretary).

A letter was read from Mr. Petherick stating that the few missing volumes in the York Gate Library were being collected and sent on.

An invitation to a Congress to be held in Marseilles in September next was read. A reply to be sent that the Council would be glad to be represented if a member could attend.

A letter was read from Captain Barclay stating that he would forward a report of his expedition in the interior, and asking the Council to recommend the Government to grant him some remuneration for his work in preparing maps and plans of the exploration. Letter to be forwarded to the Government expressing the hope of the Council, that if, after

examination, the work was found to be of value, the Government would grant Captain Barclay remuneration.

It was decided that as no member of the Council could attend the ceremony to be held in June next in celebration of the twenty-fifth anniversary of the foundation of the Queensland Geographical Society, a letter of congratulation be sent.

A pamphlet by Mr. J. W. Hiscock, on "Volcanic Activity and Rainfall," was placed before the Council.

Mr. F. W. Giles presented a piece of oak from H.M.S. "Buffalo," and was thanked for his gift.

Mr. Horrocks lent a copy of the journal of his uncle, Mr. Horrocks. To be published in the Proceedings of the Society.

## ATTENDANCE ROLL.

### COUNCIL MEETINGS, 6.

The Hon. Sir Langdon Bonython, M.H.R.	...	...	6
W. B. Wilkinson, J.P.	...	...	6
R. Kyffin Thomas, J.P.	...	...	5
Dr. E. J. Eitel, M.A., Ph.D.	...	...	5
Simpson Newland, J.P.	...	...	5
W. P. Auld	...	...	6
A. W. Dobbie, J.P.	...	...	6
A. M. Simpson, J.P.	...	...	1
C. L. Whitham, J.P.	...	...	3
A. W. Piper	...	...	5
E. H. Bakewell, J.P.	...	...	3
T. Gill, I.S.O.	...	...	5
A. T. Magarey	...	...	5
E. H. Newman, LL.B.	...	...	6



## THE LIBRARY.

### Additions to the Library:

- Royal Geographical Society, London, 1904-5, The Secretaries.
- The Geographical Societies of Liverpool, Manchester and The Secretaries.  
Edinburgh.
- British Association for Advancement Science, London, Southport Meeting, 1903, Cambridge Meeting, 1904.
- Royal Colonial Institute, London, Vol. xxxv., 1903-4, Dr. J. Garson.  
1904-5 The Secretary.
- Royal Institution of Cornwall. The Secretaries.
- Royal Dublin Society, 1904-5. A. H. Foord, Esq.
- Royal Society, Edinburgh, 1901-5 The Secretary.
- Société Géographie, Paris, 1904-5 Le Directeur.
- Société Géographie Commerciale, Paris, 1904 Le Directeur.
- Bulletin der Musee Oceanographique, 1900-6. Prince Albert de Monaco.
- Les Sociétés Géographie Havre, Tours, Marseilles, Neuchateloise, Schleswig-Holstein, Mitteilungen, Giessen, Finland, Lima, Milan, and Geneva The Directors.
- Congres Maritime Internationale, Lisbon, 1904
- Le Secrétaire, Paris.
- Royal Asiatic Society, Calcutta, 1904-5, B. Alcock, Esq.
- Royal Asiatic Society, Bombay, 1904-5 R. N. Gray, Esq.
- Royal Asiatic Society, Colombo, 1904-5 G. Joseph, Esq.
- Museum Natural History, Madras Edgar Thurston, Esq.
- Academy of Antiquities, Stockholm Dr. Blomberg.
- Netherlandsche Indie Society, Batavia
- Dr. W. Van Bemmelen.
- Geographisches Adreßbuch, 1905
- Dr. Hermann Haack.
- American Geographical Society, New York, 1904-5
- Geo. L. Hurlbutt, Esq.
- Journal of Geography, New York, 1904-5
- Professor Dodge.
- American Academy of Arts and Sciences, New York, 1904-5.
- American Museum of Natural History, New York, 1903
- Morris K. Jessup, Esq.
- New York Public Library, New York, 1905
- Dr. Jno. S. Billings.

- Smithsonian Institution, Washington  
S. P. Langley, Esq.
- Missouri Geological Survey, Vol. viii.  
Missouri Bureau of Geology Survey, 1903-4.  
Report Michigan Academy of Science, 1894-1904  
Dr. G. P. Burns.
- Statistical Atlas and Census of the United States, taken  
in 1900, Washington Wm. R. Merriam, Esq., Director.  
Department of Agriculture, Washington, Series of Maps,  
F. H. Hitchcock, Esq.
- National Academy of Science, Washington, Vol. viii.,  
1903-5. T. Trevor, Esq.
- American Philosophical Society, Philadelphia, 1904-5  
J. M. Hays, Esq.
- Philadelphian Museum, Philadelphia, 1903-4  
W. P. Wilson, Esq.
- Geographical Society, Philadelphia, 1904-5  
Dr. Paul Sartain.
- Boston Society of Natural History, Boston, Vol. xxxi.  
The Director.
- Wisconsin Academy and Natural History Survey.  
Madison, 1904 The Secretary.
- University of Montana, Montana, 1904 The Secretary.
- University of Kansas, Lawrence, Kansas, 1903.  
H. B. Newson, Esq.
- Angustana College Library, Rock Island, Illinois  
The Librarian.
- Missouri Botanical Garden, St. Louis, Mo., 1905  
W. Trelease, Esq.
- Academy of Science, St. Louis, M., 1903-4  
Dr. G. Hambach.
- Geographical Society of the Pacific, St. Francisco, 1904  
T. F. Trevor, Esq., M.A.
- California Academy of Sciences, St. Francisco, 1902-4  
The Secretary.
- The Alaska Boundary—Geographical Society of the  
Pacific, 1903 Geo. Davidson, Esq.
- Geological Survey of Canada-Ottawa, 1903-4, Altitudes  
Dominion of Canada, 1903, Dictionary of Altitudes, Canada,  
1903, G. M. Dawson, Esq., Director. C.M.G., LL.D., F.R.S.
- Royal Society of Canada, Ottawa, 1902-3 The President.
- Parliamentary Library of Canada, Ottawa  
M. J. Griffin, Esq.
- Boletin Instituto Geologico de Mexico  
Mons. Jose G. Aguilar, Director.
- South African Society, Cape Town, 1904-5  
L. Peringuez, Esq.

- Polynesian Society, New Plymouth, New Zealand, 1904-5.  
S. Percy Smith, Esq.
- New Zealand Institute, Wellington  
Sir Jas. Hector, K.C.M.G., M.D., F.R.S.
- Geographical Societies, Victoria, New South Wales, and  
Queensland The Secretaries.
- Royal Societies, South Australia, Victoria, and New  
South Wales. The Secretaries.
- Australian Museum, Sydney, 1904-5 S. Sinclair, Esq.
- Science of Man, Sydney Dr. Carroll.
- Report of Public Library, Museum, and Art Gallery of  
South Australia, 1903 The Secretary.
- Report Geological Exploration West and North-West of  
South Australia, 1905
- H. Y. L. Brown, Esq., Government Geologist.
- The Agricultural Gazette, New South Wales, 1904-5  
The Minister.
- Bulletin North Queensland Ethnography, 1901-6  
Dr. Walter Roth.
- Report Department Mines and Agriculture, New South  
Wales, 1904-5 The Minister.
- Report of Kerosene and Shale Deposits, New South  
Wales, 1903 The Minister.
- Report Department of Fisheries, 1903-4  
J. A. Brodie, Esq.
- Report Department Lands and Survey, New Zealand,  
Wellington, 1905 The Minister.
- Report Department Mines, 1903, Western Australia  
The Minister.
- Report Department Lands and Survey, 1903, Western  
Australia The Minister.
- Journal Department of Agriculture, Western Australia  
The Minister.
- Western Australian Mining Industry, 1904, Department  
of Mines The Minister.

PRESENTED TO THE MUSEUM—

- A Piece of Oak from H.M.S. "Buffalo," by F. W. Giles,  
Esq.
- An Old Globe, by J. G. O. Tepper, Esq.

# ANNUAL MEETING.

HELD MAY 12, 1906.

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The annual meeting was held at the Society's Rooms in the Institute, North-terrace, on Monday afternoon, May 12, 1906. The President (Sir Langdon Bonython, M.H.R.) was in the chair.

## THE ANNUAL ADDRESS.

The President, in delivering his address, said—

The most noteworthy events in the history of the South Australian branch of the Royal Geographical Society during the twelve months just ended are the purchase of the York Gate Library and the affiliation of the Society with the Public Library, Museum, and Art Gallery. The York Gate Library was the property of the late Mr. S. W. Silver, of London, and consists of works relating to geography, maritime and inland discovery, and colonisation. Its character is so described in a very handsome catalogue of 336 pages, published as long ago as 1887. Since that year very substantial additions have been made to the library, in the collection of which Mr. Silver exercised great care and judgment. It was the hobby of his lifetime. The Council, with the approval of the members of the Society, authorised the expenditure of £1,500 of its funds in the purchase of the books, leaving any further sum required to be raised by private subscription. Negotiations were carried on for some time, and eventually the York Gate Library became the property of the Society for £2,000, the vendor accepting as payment 3 per cent. South Australian stock (in which our funds were invested) to the amount named. The money needed to supplement the vote of the Council and to meet expenses connected with the packing and shipping of the books, which fill, I may state, about sixty cases, was generously provided by Messrs. R. Barr Smith, John Darling, John Gordon, Henry Rymill, George Wilcox, A. M. Simpson, T. R. Scarfe, W. Milne, C. H. Goode, Richard Smith, R. K. Thomas, Henry Scott, and the President; while Messrs. Elder, Smith, & Co. were good enough to bring the books from England to Australia free of charge.

That the additional money was so quickly raised was due in the first instance, of course, to the public spirit of the donors, but, in the second place, and very largely, to the activity of Mr. Thomas Gill, our Treasurer, who from the outset worked with enthusiasm to secure the library for South Australia. The explanation of this enthusiasm is to be found in the fact that Mr. Gill knows a great deal about books, especially of the literature relating to Australia. As a curious circumstance, I may mention that Mr. Silver sent me, soon after it was published, a copy of the beautiful catalogue to which I have referred. The catalogue was published by John Murray, which in itself is a tribute to the character of the work. When that copy was forwarded to me it could hardly have crossed Mr. Silver's mind that some twenty years later the whole library would follow that volume to Adelaide, and that, as President of your Society, I would be the purchaser. But Mr. Silver was not without thought of the colonies, as witness the following extract from the preface to the catalogue:—"It may, I hope, possibly draw attention to the prospects and resources of our colonies, a subject with urgent claims upon the study of the politician and the statesman, as well as the merchant and the capitalist. And, not as mere dependencies, but as component parts of the Empire which, at no distant future, must become of greater importance in the world than the mother country herself." The library, I unhesitatingly affirm, is a great bargain; and as a member of the Library Committee of the Federal Parliament, I think I may say that if the Society wished to sell it they would not have to wait long for a purchaser at a substantial advance on what was paid for it. Already the library ranks among the coveted possessions of Adelaide. The Council were quite justified in recommending the Society to use a portion of the endowment, so munificently provided by the late Sir Thomas Elder, in the purchase of a collection of books, which must be simply invaluable to the student of civilisation or colonisation.

Having secured the library, the question of housing it had to be dealt with, and I am happy to state that it has been disposed of in a very satisfactory manner. The Government have undertaken to provide the necessary accommodation in a building to be erected in connection with the Public Library on North-terrace. This admirable arrangement carried with it the affiliation of the Society; but before the affiliation took place the Council dedicated the York Gate Library, and any books which may be added to it in the future, for the use of the public for all time. Until the new building is available the Board of Governors of the Public Library have given the

Society quarters in the Institute. It is true that the Society will not in the future receive the interest on £1,700, viz., £51 per annum; but they save rent—an equivalent amount, and, in addition, get a subsidy from the Government; so the Council cannot be said to have made a bad business arrangement or to have sacrificed the interests of the Society even in the matter of revenue.

Since the last annual meeting, which took place on June 6, the Council have held six meetings, and a number of new members have been added to the roll of the Society.

It is with deep regret that the Council record the death of two members—Mr. William Milne and Mr. Tom Coward, who had for many years taken a deep interest in the progress of this Society. Mr. Milne made an unsolicited gift of £20 towards the cost of purchasing the York Gate Library.

Three Lectures have been delivered during the year. One on April 7, on "Pearl-Fishing in North-West Australia," by Mr. W. J. Sowden; another on May 19, on "Glimpses of Arctic Life," by our Vice-President (Mr. W. B. Wilkinson); and a third on October 27, on "The Grand Canyon of Colorado and Arizona," by Mr. A. T. Magarey. The three lectures were full of interest.

No contribution of special value has been made to our geographical knowledge of Australia during the past twelve months. The story, such as it is, is one of drought and disaster. In September last the South Australian Government sent a well equipped party, under Mr. F. R. George, of the Mines Department, on a prospecting expedition to the Northern Territory to examine thoroughly the Petermann and Treuer Ranges, and the country surrounding Tanami, where Mr. Davidson reported a discovery of gold in 1900. The expedition was unfortunate. No mineral discoveries were made. The weather was extremely hot, and water very scarce, almost unobtainable, with the result that the camels found the adverse conditions too much for them. To add to the record of disaster, the party were attacked by natives, and two men were seriously speared. Mr. George took one of the injured men to Alice Springs, and a few hours after arrival there Mr. George himself died. He had been unwell, but his death was quite unexpected. Mr. George was a young man, who had just added his name to the list of Australian explorers, and, like many before him, has sacrificed his life in the attempt to open up the interior of this great continent. He has fallen out of the ranks, but his place has been taken by Mr. W. R. Murray, also of the Mines Department, who will endeavor to complete the work on which his predecessor

started. Messrs. Barclay and MacPherson have made another expedition through the unknown portion of our north-eastern territory. They passed over country so drought-stricken that even the natives had fled from it. They heard rumors of a large fresh water lake, but may not such reports be of spontaneous growth in such a dry and thirsty land?

On July 4 the Council resolved to record in the minutes their high appreciation of the services rendered by Sir A. C. Gregory to Australian exploration and geographical science, and to forward a copy of the resolution to the Geographical Society of Queensland. The reason for this action was that the great explorer had just died—a very old man. He began his explorations in Western Australia as far back as 1848. Later he headed two expeditions—one in 1855 and the other in 1858, in search of Leichhardt. He failed to find the lost explorer, but he himself did much valuable exploratory work, especially in Central Australia and towards the Gulf of Carpentaria. It was while on his last expedition that Gregory found a camp with a tree marked L. If this were really a camp of the unfortunate explorer, it was Gregory's opinion that the Leichhardt party left the Barcoo at a point near its junction with the Alice, and then, finding that water was unobtainable, in the endeavor to retreat perished from thirst. It is agreed that it is impossible to speak too highly of Gregory as an explorer. There was rapidity, as well as thoroughness, in his work. In sixteen months he travelled over 5,000 miles through the most arid portions of Australia. A few months before his death his services were recognised by knighthood.

In glancing at the geographical year abroad it is impossible not to be struck with the increased attention now given to the study which it is the aim of this Society to foster. In the recollection of many who do not care to hear themselves described as middle-aged, geography was the Cinderella, not only of the sciences, but of educational subjects also. We may attribute this change of attitude in great measure to the multiplication of geographical societies, and of journals and magazines which are exclusively devoted to geographical matters. In Germany, where everything is done with great thoroughness, there is scarcely a university without its professor of geography, and the result is seen in the superior quality of the work of explorers trained in that country. At Oxford and Cambridge schools of geography have been established, and if there are complaints that the subject has not yet received full recognition at the hands of university authorities, the time is not far distant when that recognition will be accorded to it. In the public and elementary schools

of the United Kingdom geography is receiving an amount of attention which would have been regarded as altogether disproportionate a few years back. In their recent regulations for secondary schools the British Board of Education require a geographical course extending over four years, and comprising two hours' work in school and one at home every week. The first year will be devoted to the "climatic phenomena of Europe, as leading up to the general principles;" the second year to "distribution of products, illustrated by American examples;" the third year to "effects of environment;" and the fourth year to "practical questions of the day." The Government themselves have, as the result of protracted agitation, recognised the importance and value of geography by giving it a distinct position among the subjects on which candidates for the lower Civil Service appointments must submit themselves for examination. Why geography is not to be an element in the training for the higher appointments does not appear.

How fascinating are many of the problems of geography one cannot fail to see in glancing through the numbers of that admirable periodical, the "Geographical Journal" for the past twelve months. Nothing, for example, could be more interesting than Dr. W. F. Hume's speculations on the past history of the Mediterranean, when that sea extended northward to Vienna, absorbing the Black Sea and the Caspian; or those of Sir Clements Markham as to the course of the Arctic currents, a knowledge of which would throw light on the at present unsolved question, the place of origin of the drift wood which, showing no sign of an axe and yet as fresh as if it were just cut, is encountered on the shores of that vast and deep ocean, which, as now demonstrated by science, encircles the North Pole. The South Pole has a different environment, for there we have a vast and elevated continent surrounded by water. But as shown in a paper published in the "Geographical Journal" by the late Baron von Richthofen the problems which confront us there are not less interesting than those which baffle Arctic experts—to Australians, indeed, far more interesting. Living fauna and flora may abound at the South Pole; we cannot say. But fossils both of plants and animals which are known to exist there (specimens having been found by the Swedish expedition) ought to, and probably will, settle the question whether and, if so, when, New Zealand and South America formed part of one continent.

In last year's report South Polar discovery came in for a larger share of attention than can be claimed for it now. Beyond adding to our knowledge of the coasts and islands



west of Graham Land, south of Cape Horn, nothing was done by Dr. J. Charcot's expedition, the latest of the many which have sought to lift the veil that enshrouds the Antarctic region. The Arctic has been a scene of greater activity, for several expeditions to the North Pole have been at work, and others are projected, some on quite new lines. The return of the relief ship *Terra Nova* with the members of the Ziegler party was announced in August. The party, led by Mr. Fiala, had the misfortune in January last year to lose their ship, the *America*, and after three unsuccessful attempts to reach a high latitude they had to confess themselves foiled. After eighteen months' sojourn in the ice they were fortunate enough to be rescued after one expedition for their relief had been driven back. Some additions were made to the stores of knowledge garnered by previous explorers as to the physical conditions of the Arctic region; but it was well known that scientific research occupied but a small place in the promoter's thoughts. The motive was patriotic rather than scientific. Mr. Ziegler died before the return of the expedition, and was thus spared the disappointment of knowing that in spite of an expenditure upon an equipment worthy of an American millionaire, it had failed to approach within several hundred miles of the "record" already made. The Abruzzi expedition penetrated the Polar circle as far as 86 degrees 13 minutes, but the Ziegler expedition attained no higher latitude than 82 degrees 13 minutes.

It is apparent that there are limits to the power even of the "almighty dollar;" but it is by no means certain that the first flag to be "nailed to the Pole" (if such a feat can be achieved in the middle of an ocean) will not be the "Stars and Stripes." Commander Peary, of the United States Navy, is, it is said, certain of success in the effort on which he embarked in July last to reach the Pole by a dash across the ice-pack from a base, to which he proposed to force his ship, within 500 miles of the Pole itself. From the northerly coast of Grant Land, or perhaps of Greenland, he proposed to start last February with an escort of picked Eskimos on the five months' trip, which, if all went well, would bring him to the Pole.

Haste and good luck will certainly be needed if Commander Peary is not to be forestalled, for Mr. Edward Wilson, of Pimlico, London, contemplates making a voyage to the Pole in an airship he has constructed with a speed of fifty miles an hour, after the fashion described in Jules Verne's "Clipper of the Clouds;" while Mr. W. N. McInnes, Governor of Yukon territory, has so poor an opinion of Commodore Peary's chances that he thinks June will be early enough for an ex-

pedition the Yukoners are planning to start for the North Pole from a base 700 miles from the goal. After these ambitious projects the actual operations, reported in September, of the Duke of Orleans' Greenland expedition must seem a little tame, though they include the mapping of a new land, which received the name of "Terra de France," and the discovery that Cape Bismarck is situated on a huge island, and not on the mainland, as has been assumed. Useful also have been the labors of an Englishman, Mr. A. H. Harrison, who has been exploring an unknown region to the north of McKenzie River; of Mr. Ericssen, a Dane, who has been endeavoring to complete the survey of the east coast of Greenland; and of Captain Amundsen, a Swede, who has been engaged in magnetic work in King William's Land.

It would now be strange if any year passed without adding something to our knowledge of Africa and its people, since there are more explorers at work there than when British adventurers had almost the entire field to themselves. Sir Clements Markham not long ago referred to the effect of international peace in encouraging geographical research. Science then claims some of the attention and a little of the expenditure which at less fortunate periods are lavished on war. Not only are the powers prompted by tangible interest, to overhaul their barbarous or semi-barbarous possessions acquired at the Berlin Conference of 1884; they make it a point of honor to carry civilisation into the dark places within their jurisdiction. This is true of England, and among foreign Powers is particularly true of France, which—although perhaps the fact is not generally known—had, even before her predominance in Morocco was officially recognised at the recent Algeiras Conference, a larger sphere of influence in the Dark Continent than any other Power.

Since Marchand in 1898 accomplished his wonderful journey from the French Congo through the Central Soudan to the Upper Nile, thence through Abyssinia to the Red Sea Colony of Jubital, French exploration has had nothing so sensational to show as M. Gautier's march across the Sahara Desert from Terat down to the Niger, which he accomplished last year, for the greater part alone. Almost simultaneously the central portion of the desert was crossed by M. Villatte for the first time since the murder of Major Laing, as long ago as 1826. The French are justly pluming themselves on the ease with which the Sahara may now be traversed in all directions, certainly with greater safety than the Atlas Mountains in Morocco, where last year another intrepid explorer, the Marquis de Segonzac, had a very narrow escape from death at the hands of a hostile tribe.

M. de Brazza died in September. He was the greatest of all French explorers, and the founder of the well-known town of Brazzaville, on the upper reaches of the Congo. To his treaties with native chiefs France primarily owes the extension of her sphere in West Africa.

Survey work in Northern Nigeria has been accomplished by a British expedition, under Lieutenant Alexander and Captain Gosling. But more attention is claimed by Major Gibbons' exploration of "plateau land" in British East Africa, the immense and valuable territory—how immense and how valuable is only now known—which a year or two ago was generously placed by the British Government at the disposal of the leaders of the Zionist movement. Whether Guas Ngishu will ever become an autonomous province under Jewish administration has yet to be seen; but Major Gibbons' examination left no doubt in his mind as to its suitability for agricultural and pastoral purposes. The plateau, which is about 6,000 ft. above the sea level, comprises some 6,000 miles, 400 of which are covered with great entangled forest, including giant cedars 100 ft. in height.

Since Uganda has been connected with the coast by rail there has been an assured market for the produce of the highlands of the East African protectorate; but Major Gibbons has been confirmed by his later researches in the belief he has held for some years, that the natural outlet for Uganda and North-Western British East Africa is not the Indian Ocean, but the Nile, which, at a cost quite trivial, compared with that of the work already done in Egypt, could be rendered navigable from Lake Albert to Upper Egypt. A navigable waterway through the cataract district to the Mediterranean would, he states, restore to Egypt its former reputation as one of the world's greatest granaries. The increased traffic would bring down Mediterranean sea freights to the Atlantic level, and Uganda and the rest of British East Africa would share the advantage with Upper Egypt.

This branch of our subject cannot be left without some reference to the opening by Lord Cromer in January last of the long-talked-of railway between the Nile and the Red Sea. The line, whose terminus is a few miles north of Suakim, promises to achieve wonders for the commercial development of the Soudan.

Although Thibet has lost something of its romance since the veil of mystery which has hung over its capital was lifted by Sir F. Younghusband's expedition, its geographical problems have still an irresistible fascination for explorers. Dr. Sven Hedin is now making his fifth journey to Central Asia, and his third to Thibet, where he proposes to survey the lakes.

His route will take him through the salt deserts of Persia and through Afghanistan and India. It is no longer necessary to depend on Indian native spies for a knowledge of Thibet, though, as shown by the reports last year of Major Ryder and Captain Rawling, nothing was lost by the employment over two decades ago of Kishin Singh and Chandra Das, who, trained for the purpose in Calcutta, supplied the authorities there with general maps and charts of Thibet, the accuracy of which has now been verified.

The physical characteristics of Eastern Turkestan have been subjected to further study by the American scientific expedition under Messrs. Barrett and Huntingdon. They have been struck by the resemblance which the basin of the River Tarim, the one river that, with its tributaries, waters Eastern Turkestan, bears to a sea. Excepting for the scant supply of water it might pass for another Mediterranean. That the Tarim basin was once a huge sea Messrs. Barrett and Huntington are convinced. But the sea has disappeared under the process of desiccation which, begun long before, has been going on throughout historic time, and which probably explains the abandonment of once flourishing cities in Eastern Turkestan, of which traces are still discoverable in the vicinity of the Tarim basin. All the deserts seem to be advancing their sandy frontiers on every side. East of the Caspian Sea, and north and west of the vast ranges of the Himalayan Mountains, the centres of a bygone civilisation are now covered with drifting sands and choking dust, which the dry winds convert into immense smothering clouds. It adds to the interest of this process of desiccation that it is not confined to the lofty plateaus of Central Asia, but, as was observed at the late meeting of the British Association in South Africa, extends to the Dark Continent. There are plain evidences of the former existence of flourishing and inhabited oases in the vast desert of Sahara, and within a few generations several African lakes have disappeared in whole or part. Lake Ngami, discovered by Livingstone, no longer exists, and even the much-talked-of Lake Chad is half dried up. It would really seem as though a recent American theorist has not drawn entirely upon his imagination in his ghastly picture of a time when human life will be limited to the sea shores, and still later, when the oceans themselves will have vanished, leaving our planet as arid and lifeless as its nearest neighbor the moon!

Researches of great value have been made by Dr. Tafel, a German geologist in Northern China, and by Mr. Clennell, the British Consul in Central China, particularly in the region of the Poyang Lake. Reference may also be made to the account given by M. Blanc to the Paris Geographical Society

in November, of the Russian naval expedition to Yenesei, by which the practicability of the sea route as a means of communication between Europe and Siberia was thoroughly demonstrated. Siberia is intersected by some of the noblest waterways in the world. It abounds in mineral wealth, while wool, tallow, and meat from the grassy prairies only wait for carriage by the route whose feasibility was first indicated by the late Captain Wiggins. Without a sea route Siberia would have been forced to consume its own wealth or leave it undeveloped, for it would have been impossible to convey it at a profit over the long land journey to the European markets. The Yenesei, which was reached in September by four Russian cargo steamers, escorted by two cruisers, is navigable for over 2,000 miles of its course, and a vessel of light tonnage can ascend from the sea to a point not far short of the Chinese frontier. Some German vessels which accompanied the expedition made their way into the Obi, the other great Siberian river, which discharges into the Arctic Sea near the mouth of the Yenesei. After so comprehensive a test the Russian Government may well be satisfied, as they are, of the practicability of a regular commercial service.

In closing this address I would remind members that this is the twenty-first year of the Society's existence. The inaugural meeting was held on October 22, 1885. To open the York Gate Library in our new quarters will be a very excellent way of commemorating such an interesting stage in our history.

Mr. Thomas Gill (Treasurer) read the balance-sheet, which showed that the income for the year was £128 5/, with a balance in hand of £20 5/10 at the close of the year.

Mr. C. J. Sanders, in moving the adoption of the President's report and the balance-sheet, said he considered both to be highly satisfactory. The Council seemed to have made splendid arrangements for the purchase and housing of the York Gate Library, and after its purchase the Society was not much worse off financially. He agreed with the President that great credit was due to Mr. Gill for the assistance he had rendered during the negotiations for the acquisition of the library, and for the valuable services he had rendered to the Society generally. They should also include Sir Langdon in their expression of thanks. He had listened to the able address of the President with great interest, and was anxious to read and study it carefully. He thought the Council should be congratulated upon the admirable manner in which they had carried out their important duties.

Mr. J. G. O. Tepper seconded the resolution. The President, he said, was to be congratulated upon his exhaustive and interesting report of the year's proceedings, which pro-

vided much food for thought. It was greatly to be deplored that Mr. George had paid for his intrepidity with his life, but he had answered the call of duty with the promptitude of a soldier, and unfortunately fell at his post. In respect to Siberia, he had recently read a German work, which stated that the whole of Siberia was composed of alternate layers of ice and mud, and that holes had been sunk for hundreds of feet without reaching a solid bottom. By that he concluded that if ever Siberia got warmed up water would take the place of the land. He joined with the mover in congratulating the Society upon the favorable aspect of affairs.

The motion was carried.

On the motion of Mr. J. S. Lloyd, seconded by Mr. H. P. Moore, the following office-bearers were elected: President, Sir Langdon Bonython, M.H.R.; Vice-President, Mr. W. B. Wilkinson; Council, Messrs. Simpson Newland, R. Kyffin Thomas, W. P. Auld, A. M. Simpson, A. W. Piper, Dr. E. J. Eitel, C. L. Whitham, A. W. Dobbie, E. H. Bakewell, and C. H. Harris (honorary member); Hon. Treasurer, Mr. T. Gill; Hon. Secretaries, Messrs. A. T. Magarey and E. H. Newman; Hon. Auditors, Messrs. L. H. Sholl and F. W. Giles.

Mr. F. E. Benda, in proposing a vote of thanks to the officers of the Society, said he had received in his official capacity of Secretary to the Minister controlling the Northern Territory a detailed report from Mr. W. R. Murray, who recently succeeded the late Mr. George as leader of the Northern Territory exploration party. Mr. Murray stated that he intended leaving Alice Springs and making for Anna Springs, thence going to Alanda and Mount Leichhardt, where he would leave his party to prospect. He then intended to go by himself to Barrow Creek to pick up rations, &c., left by Mr. George, and on rejoining the party would take a west by south direction to the Treuer Ranges. After an examination of that locality he would proceed to the Tanami district.

Sir Langdon Bonython, in responding, said that not only was the purchase of the York Gate Library a step in the right direction, but it had made the South Australian Society far and away the first Society of its kind in Australia. He reminded them that there were 1,700 books in the library in addition to those in the handsome catalogue published in London. Mr. Gill had informed him that this catalogue was to be found in all the great libraries of the world. The excavations for the foundations of the new building for the Society were in progress, and the premises, he hoped, would be ready for them in nine or ten months' time.

# PAPER

READ BEFORE THE SOCIETY.

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## On Pearl-Fishing in North-West Australia.

BY W. J. SOWDEN, J.P.

(Read April 7, 1905.)

In the latter end of 1904 I left Adelaide in the s.s. Bullara for North-West Australia, both on the score of health, and at the instance of the South Australian Government, which entrusted me with a commission to enquire into the working of the pearl fisheries in the Kimberley district, mainly off the coast near Broome, an industry in which so many fortunes have been made, and which in its diving operations is carried out entirely by colored laborers, without which the pearl fisheries would have to be closed.

We left Port Adelaide as the midnight moon exquisitely silvered the winding Port River, its mangroves, and its buildings, and the next day, with a sun glowing dazzlingly upon a sapphire sea, we steamed out of the Gulf into the Great Australian Bight, the region which Flinders and Franklin had visited in their rickety ship one hundred years before; and after a lovely three-days' voyage we entered the Swan River, Perth, a river which received its name by a Dutch navigator, Commander Vlaming, in January, 1697.

To the Western Australian capital the River Swan is what the ever-lovely surrounding hills are to Adelaide and the beautiful harbor to Sydney. Its advantages have never been sufficiently appreciated by Western Australians; for eventually ships will doubtless go to Perth instead of or as well as to Fremantle. About 170 miles from Perth are the famous caves of Western Australia; not long since visited by my friend, Mr. A. W. Dobbie, of Adelaide, whose record that I give by permission is as follows:

"I inspected the Black Boy Hollow, Calgardup, Mammoth, and Lake Caves at Margaret River, and the Yallingup

Cave, near Busselton, and I have now no hesitation in saying that the Lake Cave stands pre-eminent above any other caves that I have seen, for size, beauty, and marvellous variety of formation. The Lake Cave as a whole is certainly the climax of all that is wonderful and beautiful in scenery of the kind. No word painting, however graphic, no photography however beautiful, could do justice to that wondrous decorative architecture in the gloomy and silent depths of the earth, about 400 ft. below the surface. Imagine a vast chamber about 300 ft. long by about 50 ft. wide, with a ceiling varying in height from 12 to 40 ft., covered with uncountable thousands of stalactites of every shade of white, from clear crystal to snow, cream, and French white, of the most exquisite as well as fantastic design, ranging from 3 in. to 15 ft. in length, interspersed here and there with tinted variations colored by the iron and mineral oxides dissolved by the carbonic acid from the rock above, all glistening in the brilliant light of the magnesium lamp. Imagine this, and you will then have a faint idea of the marvellous scene. Add to it the beautiful reflections in the crystal sheet of water which covers most of the floor, and which is a charming addition to the picturesque and fairy-like scene. Besides all the beauties referred to in connection with these stalactites suspended from the roof and sides of the cave, there are the astonishing stalagmitic formations, which are built upward from the floors by the dripings from the stalactites above, in the form of more or less beautiful marble columns, varying from 1 in. to 10 ft. in thickness, in endless variety of size and charm. Other striking features of these wonderful gems of Nature are the shawl and blanket formations, and especially the King's jewels in the Yallingup Cave, which, as a single specimen of exquisite structure and tinting in the way of stalactitic formation is absolutely unique, and exceeds in beauty anything I have ever seen. It is indeed the climax of loveliness."

On our way to the pearl fisheries from Fremantle we reached the Abrolhos Group of islets, an exceedingly interesting locality, and that which witnessed the first beginnings of Australian history. Australia was rightly originally named New Holland, as it owes a great deal to Dutch navigators; and these island reefs were named Houtman's Abrolhos, the first title named after De Houtman, a fine, plucky old Dutch mariner (who 300 years ago was Governor of Amboyna, in the Malay Archipelago), the second title after a Portuguese expression, "Keep your eyes open," which De Houtman, when, in 1619, with eleven ships, appeared off these reefs, unquestionably did; and that is what modern mariners have to do



every day and every night in these latitudes, for the coast is one of the most dangerous and the least clearly defined in Australasia, many ancient Dutch vessels having been wrecked on this and other islands of the group.

In those early days numerous ships left Dutch settlements for various places, and were never heard of afterwards. The first authenticated wreck was in 1656, when passengers, crew, and an immense sum of money were cast ashore. Some of the shipwrecked Dutch mingled with the blacks, and even now some natives of the surrounding country are found with comparatively fair complexion and with light hair.

The Abrolhos Group is one of the principal deposits of guano, the odoriferous good angel of the Australian producer. Many thousands of tons of this valuable fertiliser have been and are being taken from this spot. The guano is in the form of a fine powder, dangerous to the lungs of the men, who, therefore, as far as is possible, work to windward of it.

Leaving the Abrolhos we reached Shark Bay, the first part of Australia's shores visited by a white man. Opposite is Dirk Hartog's Island, now used as a sheep run, on which, though it is swept by salt spray, the stock is yet always in good condition. This long strip in the sea took its title from Dirk Hartog, a Dutchman, who was in Shark Bay in 1616, and left a unique visiting card in the shape of a tin plate nailed to a post on the north end of the island. We passed the point, Cape Inscription, on a gloriously clear morning; but we could not see either post or plate. Both had, in fact, been removed some time before. The French explorer, Baudin, was reputed to have seen it in 1803, but it has never been seen since. Shark Bay is practically the southern limit of the pearling grounds and 800 miles from Broome, which is the centre of the greatest pearl-fishing industry in the world, as the fisheries extend hence to far beyond the Equator. At least 1,000 miles of the coast is rich in pearlshell. After leaving Denham Sound, the next point of call is Carnarvon, the centre of Sir George Grey's explorations in 1839, explorations which are described in his famous despatches, which are among the most vivid and valuable in geographical annals. Steaming onwards we reached the 22nd parallel of south latitude off North-West Cape, where begins the southern limit of the area in which the large pearlshell is found. After this comes Onslow, the principal port of the Ashburton district, and a rendezvous of the vessels employed in the pearlshell fishing industry, and from which a large quantity of wool, sandalwood, pearlshell, pearls, and tortoise-shell is exported.

And now, arriving at Broome, we crawl along the little 2-ft. tramway that stretches from the ship's side to the town, where we see a spectacle which no other part of Australia presents. Various factors make up the complete picture. The tide runs out here as much as 28 ft., and the efflux is remarkably rapid. At high water scores of luggers, which had put in here for rest and recruiting during the three months of the muddy-water season (when usually no profitable pearling is done and little attempted) showed only the tops of their masts above water. Numerous pearling boats and other larger vessels, which had been floating gracefully on the ocean when we began luncheon, were heeled over on their side at an angle of 45 degrees. As the land beyond which the maximum tide can reach is relatively low the schooners and luggers may be brought up almost to the backyards of their owners' residences. The Residency lies near to Dampier Creek, an estuary long known in history.

The prosperous town of Broome has been created by the pearl industry, and is the largest pearling centre in Australia. It has risen like Jonah's gourd, and it would wither with equal rapidity if the Federal authorities should decide to kill that industry. Beyond Broome there is reputedly no good back country—pastoral, agricultural, or mineral—and it is not far east of the Joanna Springs, where two Adelaide men—Messrs. C. F. Wells and G. Lindsay Jones—lost their lives in November, 1896, and are now buried in the Adelaide North-road Cemetery.

Broome strongly impresses the visitor with its brightly contrasted hues of green vegetation and ironstone outcrops, and buildings of galvanised-iron and wood, many of which, in order to foil the ubiquitous white ant, are erected on cement blocks 2 or 3 ft. high. A very prominent object in Dampier Creek is Buccaneer Rock, a sombre point rising like an obelisk at the entrance of the channel. Below this rock, according to legend, a vast accumulation of treasure was kept and left by Dampier and his crews, but the alleged wealth has never been found.

The population during the three months in which the boats are all engaged consists of about 2,000 people, of whom the majority are colored. From the recent available statistics only 110 white men and 55 aboriginals, against more than 1,500 Orientals, were engaged in pearling.

Virtually no white men go down in the dress to dive, though now and then a European pearler proceeds to the ocean bed to see what his claim looks like. Suck work is not suited to Europeans, as was shown by the unusual tendency

to paralysis and other serious ailments among the few who tried it in the early history of the fisheries.

A lugger engaged in these fisheries is usually 35 ft. long, with 12 ft. beam, and costs about £450. Fully equipped with an air-pump and diving apparatus, it involves a total outlay of £750. These luggers must be strong and compact, for sometimes the men work in them six weeks at a stretch without staying inshore a single night. Constantly buffeted by winds, they frequently become damaged.

The voyage also from Fremantle is dangerous. High insurance rates are levied on the craft making it, and some captains will not risk the passage under any inducement.

A brigantine is used as a depot ship, from which all stores are issued, and to which all pearls and shell are taken. She costs about £3,000, but one single pearl may make it up.

Six men are employed in each lugger, all being Malays or Japanese or Manilamen, excepting, it may be, one white man or Australian blackfellow. In that case he would be a check upon the honesty of the others; and the master would be likely to get more pearls on account of his presence than would otherwise be conveyed to him.

The method of pearl-fishing is exceedingly simple. The lugger drifts with the wind or tide, with the anchor "catted." The diver, walking below, follows its movements, and the communication between him and the men on the boat is apparently perfect. While out of the water the diver is "boss" of the boat, and an autocratic "boss," too. When he is under the sea the "tender" is in command, who holds the lifeline, and while watching the diver, directs the movements of the four boatmen, in working the air-pump—an exhausting task, as if they cease the dreary grind for a minute, or even half a minute, the death of the diver is likely to ensue. Yet sometimes they quarrel, and let go.

The diver puts the pearl oysters into a bag or net as he collects them, when they are pulled up and opened and searched for pearls. When a brigantine or schooner is with the fleet of luggers a boat puts off from it to take the catch, but the men in the lugger often manage to abstract the pearls before it can arrive, and secrete them sometimes even by swallowing them.

In earlier years all the diving was done by Australian blacks without diving dress, and the Government insisted on a maximum of 40 ft. in depth and 57 seconds as the average time to be spent under water. And then the men could not do much diving till the membrane of the ear had cracked. Even with the diving dress blood frequently escapes from the

diver's ears. The shell is taken from 100 to 120 ft.—practically the lowest depth at which divers can work. The pressure of the water at even 16 to 20 fathoms (120 ft.) is very heavy, and divers occasionally collapse in it after being down only about ten minutes, but usually through some accident to the apparatus. In shallow water they remain below two or three hours at a time. The death rate average throughout the year on the coast among the pearlers on account of the specific cause indicated is only three or four divers. The divers, however, realise their perils as well as their practical indispensableness, and they are very superstitious, and no less arrogant. The Japanese will not go down into the sea to pick up shell without a written charm around his neck; and the Malay insists upon having a talisman in the shape of a piece of wood called "poori-poori," obtained from a special place. Yet mishaps occur through many causes. Occasionally deep chasms are encountered in the bottom of the sea, when, if the diver had not a firm hold of his plunger line, he might sink beyond recovery. Then sometimes he is knocked against a big rock, or his hand may be caught in a shell. The boat drifting above all the time pulls him on, and in this way divers have been sometimes ripped open by jagged corals. Though deaths are infrequent, many cases of temporary exhaustion are recorded, especially where divers have suddenly gone too deep by stepping into abrupt depressions in the sea bottom. After such an accident they sometimes arrive at the surface apparently well, but without notice fall either backward or forward, affected by a kind of paralysis or stoppage of the circulation, and they can usually be identified in the street by their peculiar gait.

The boat hands on the pearling luggers (five besides the diver) are paid 30/ a month and their keep, during the whole year, though fishing nine months or less; and if they re-engage at the end of the first term of three years the remuneration is raised to 50/ a month. Permits have to be obtained by the masters to allow the men engaged in the boats to go ashore, and if one should run away and not be found again a penalty of £100 has to be paid. The divers receive usually as a nominal salary £2 a month, though some have £3 or £4 all the year round, whether they are able to work or not, besides £25 a ton for all the shell which they collect.

An expert and industrious man gathers about five tons each year, fifty pairs in one day representing good work; and the average payment drawn by the men is vastly beyond anything they ever knew in their own land; yet it is on an ascending scale, as masters wildly compete with each other. Most of the best men are well aware of their value, and, being

improvident, and frequently indebted to the storekeeper and others, they generally demand an advance of £100 to £200 before they will sign an agreement. The master's risk is heavy if the diver should die at the beginning of the season; and the employers, besides submitting to drastic regulations, pay £1 annually as licence-fee and £1 as water rates for each boat.

The diving dress is a heavy fabric made of thick, impervious rubber and cloth; two pieces of lead weighing 28 lb. each are placed on his back and chest, and 16 lb. on each of his boots; and in the helmet are two large glass eyes and a face glass, which magnify the objects in the water. Having put them on, the diver ascertains by means of his sounding line the depth of the water, when a plunger line is thrown overboard as a guide and protection, which he grasps and throws himself backward into the sea. The diving dress is so uncanny looking that the diver is seldom molested by the denizens of the deep, and never sees anything less comely than himself. Little more meets his gaze than can be observed from the surface in clear water in these latitudes, where marine vegetation and marine fauna are equally prolific and brightly colored. The man for whose benefit air is pumped from above simply picks up the pearlshells with his bare hands and puts them into the net hanging in the rigging, and that is usually the end of it. Occasionally he disturbs a voracious tiger shark on the bottom of the sea. But the brute is generally more frightened than the invader of his haunts. Should the tiger be in a bad temper and show fight the diver liberates a little air from his sleeve, thus producing a bubbling effect, which frightens the shark. Sometimes an octopus is seen, but as a rule the diver has nothing to fear save from the diving apparatus, and that rarely goes wrong, because extreme precautions are taken. When the diver is down below the lugger slowly drifts with the tide as he directs it by signals on the signal line. About 300 boats are engaged in the pearl-fishing trade on the north-west coast, and probably 2,750 men are directly supported by the industry.

I will now describe how the pearlshell is obtained in shallow and in deep water—at Shark Bay and Broome respectively. At Shark Bay, where land fishing is done on the reefs, the shells are emptied into large tubs and allowed to rot there in the hot sunlight. Sea water is added, and all the contents are stirred up till they dissolve in petrification. By-and-bye clear water is left, and the pearls are found at the bottom of the tub. In deep water the shell is usually searched for pearls on the lugger or schooner, though some of it is also conveyed on shore. Nearly all the body of the pearl

oyster is thrown away after the pearl has been opened, but some parts of it are frequently used for food, and in soup are esteemed even by Europeans as a toothsome delicacy. The blacks, however, are equally fond of the bacon-like flesh of the dugong, the human-breasted fish that carries its baby in its arms, and probably gave rise to the legend regarding the mermaid. Inside most of the pearlshells are found curious subtenants of the oyster, such as little crayfish, that form a cosy boudoir for themselves, and (in deep water) two transparent small sardine-like fish, that seem to be perfectly at home in their strange abode.

There are two special varieties of mother-of-pearl shell—(1) the large *Meleagrina Margaretifera*, which is the best. It is found in the tropical waters extending from Exmouth Gulf northward. From it are made the more massive mother-of-pearl articles, dessert and fish knife and fork handles, large buttons, and inlaid work. This shell contains the most valuable pearls, though not so many as the smaller kind in Shark Bay. There are from 1,300 to 1,500 shells in a ton, and five kinds of shell—chicken, bald, medium, wormy, and grubby, and the average value is about 4/6 a pair by the ton. The chicken shell is the best. In 1903 the price ranged from £200 to £365 to the ton. (2) The small shell is *Meleagrina imbricata*, which the pearlers mostly fish up on the sea banks, where the tidal fall is only 3 or 4 ft. These shells are very small and thin, averaging about fourteen to the pound, and comparatively valueless. They were at one time thrown away—nearly thirty years ago, when no systematic effort had been made to exploit the English market—but now are sent to Havre, in France, and sold at from £5 a ton to £25 for use in button-making. Proportionately to the larger growths they yield more pearls, some peculiarly shaped and of a golden yellow color. They are generally disposed of for about £2 each, and the best which have come under the notice of Dr. Maloney, the Government inspector, brought £60, and the next £30. The pearls are sometimes in the fish; at other times they are on the shell in irregular clusters, supposed to be formed by the oyster to resist invasion by its boring enemies, called “baroque,” or they are attached to the shell under “blisters,” but then their presence cannot usually be verified excepting by close examination. The blister is often a subject of speculation, and lately a traveller offered £50 for one. The owner, however, insisted on demanding £60, and, opening it himself, found a pearl worth £400. The chances, however, were equal that nothing of value would be discovered.

The pearl is the only gem in the world which is used in the shape in which Nature has left it. The pearling industry would not pay if the pearls alone were the attraction. They are to the pearler what nuggets are to the prospector. Sometimes an employer's fleet will work for years without making any substantial find of this kind, and in other cases a man will be encouraged at the outset of his experience with a handsome prize. The largest pearl reported as having been discovered in the Broome district was got by a butcher not long started as a pearler—he has a trusted aboriginal on each boat to open the pearls—and it was sold in London for about £5,000. But others worth several hundreds of pounds were disposed of to the buyers in the district. The black who found the £5,000 gem carried it absent-mindedly in his pocket for a couple of days.

Essentials to a good pearl are shape and lustre. Very few of them are black, and practically none is pink. There is more than a tradition to the effect that the best of the pearls are seldom seen by the masters, and the legislation passed years ago to prevent dishonesty by the employes who handle the shells is of little use. It is almost impossible to apply any check upon theft in this case, and the disposal of wrongly acquired pearls, even of great price, is very easy. The master who may suspect that some particular pearl is his property has to claim as such what he has never seen, and the collection of evidence is so difficult that the employer has virtually no recourse against the pearlthief, especially as the buyer of "snides" (pearls clandestinely obtained) is acute and wary, though some of them have been imposed upon by the sale of spurious pearl made in Paris and imported by way of Singapore. On the principle of the maxim that a bird in the hand is worth a whole aviaryful in the bush, the masters try their utmost to have the shells opened by themselves or some trusty representative—even an aboriginal, and never by the boat's crew. The latter, however, have sometimes neither of these men with them, and they frequently rob the employer under his own eyes. At intervals a boat goes from the schooner to the luggers to collect the shell for opening, and on its arrival the catch will appear to have been undisturbed. It is highly probable, nevertheless, that the fish has meantime had its shell opened by the action of the sun's rays sufficiently to enable some dishonest man to peep into it and to pull out anything which looks like a pearl.

How the pearl is formed nobody seems to know, for certain, but some of the pearl masters agree that a piece of grit or sand getting into the oyster cannot be always the cause of

it, for on cutting even the smallest pearl it always shows a regular layer on layer; no foreign substance can be detected. Still, as a rule, most pearls are found in diseased fish. In some countries the pearl oyster is being cultivated. Now the fishers kill the oyster to get the pearl, but it is deemed to be possible to make the fish open its shell so that the pearl may be pulled out, and Rontgen rays are being used in some countries to ascertain whether the oyster contains any pearls. A gentleman in Western Australia assured me that he has reason to expect success in pearl-making by introducing sulphate of lime into the oyster; and the Chinese have long since inserted in the fish various moulds, which have been coated with the pearly substance.

Rock oysters (*Ostræa edulis*) are also caught in this region and northward, and very toothsome they are, though the supply is limited. With beche-de-mer (sea slug or trepang) little is done. Turtle also abound in these waters, and the blacks are fond of their eggs, as well as of the layers of the eggs, of which a world-famous soup is compounded. A factory was started some time ago in the Lacepede Islands for the tinning of turtle soup; but the venture was not successful, though eventually it may be, with the gaining of experience and the overcoming of other obstacles. The industry has since been revived—and an Adelaide house is connected with it. The "tortoise-shelly" turtle are numerous, but not much utilised, particularly in the north, where the sea swarms with fish—tassel fish, weighing over 1 cwt., and specially valued for the flavor and the fine isinglass which they produce. Then there are giant mackerel, "John Dorys," huge gropers, and giant herrings from 3 to 4 ft. long, immense numbers of shrimps, and various kinds of crabs and crayfish, mammoth perch, numerous trevalli, and many other denizens of the deep, including now and then whales and seals. "Excepting for the levying of a very limited local supply," says an official report, "this abundant fish harvest of the northern district is practically ungarnered, and presents an inexhaustible field for future enterprise." At present the only fish-preserving is done at Mandurah, in the Murray estuary, about forty miles south of Fremantle, and the sea mullet and the pilchard are the varieties principally treated.

Baobab trees abound here with their great beer-barrelly boles and thin, bright green foliage, which, with other trees, assist in making up a park-like effect which is gratifying to the lover of the beautiful. The fruit is fantastically carved by the blacks, and the kernel is sometimes eaten. We steamed on to Derby (about the 17th parallel) through the fag-end of



a storm which caused even our stanch vessel to perform acrobatic tricks. However, on Monday at daybreak we were off the peninsula and the islands, on which are some of the great Dampier's monuments, and anon enter King Sound, a landlocked harbor full of beauty. At this time scores of luggers were drifting gracefully into Cygnet Bay for shelter and refitting, presenting a beautiful spectacle as the sun shone upon their heavy sails. In another direction we saw an indescribably gorgeous flame of color, out of which the sun appeared, and which seemed to dapple the ocean's surface with billows of many-hued fire; and in the distance as far as our vision extended, were enchanting vistas of brown and green isles and islets.

KING SOUND.—The character of this Sound is treacherous, and most so where most charming. The pearlshell found in its recesses is probably the most valuable discovered in Australia, but the best of it cannot be taken out on account of the irregularities of the sea bed. Years ago the catch amounted in one case to about one ton daily for twenty days, but in a tragic instance an employer lost three divers by death in a single day.

The harbor has one of the largest tidal falls in the world, its maximum being 42 ft.; and the rip at the harbor entrance and in other channels between the islets boils and surges and whirls in the form of innumerable maelstroms within maelstroms. Circle merges into circle, and madly-revolving saucer-like depression at one point is balanced by a seething, mushroomy elevation at another. Some of the currents race at the rate of twelve miles an hour, and ordinary steamships could not battle against this fearful rush of foaming waters where the incoming and outgoing tides meet. And particularly where the River Fitzroy pours its yellow flood into the harbor, an irregular ridge is formed, and the opposing forces fight furiously, hissing and foaming as they sparkle with myriads of fascinating tints in the sunlight. Never since I passed through a typhoon in the China Seas have I beheld a sight so well calculated to humble a man and make him feel as but a tiny dust speck amid all these convulsive environments.

# Abstract of Lecture on Glimpses of Arctic Life.

BY MR. W. B. WILKINSON (Vice-President).

(Read May 19, 1905.)

The lecturer said for over two thousand years the mystic spirit of the North had beckoned with icy fingers, extending her invitations far and wide to adventurous mariners and scientists of all nations, inviting them to penetrate and disclose the hidden secrets of the North Polar region. The invitations had been accepted with an ardor that had only increased and intensified as the years had rolled by. Degree after degree had been reached and brought within their knowledge, and there now remained less than four degrees to conquer, when the great secret that had baffled the efforts of so many explorers would be made known. The lecturer outlined the early efforts at Arctic exploration, adducing as instances Pytheas the Greek so far back as 825 B.C.; Naddohr, a Norwegian, who is said to have discovered Iceland about the year 860; Other and Wulfstan, who sailed round the North Cape to Lapland at the close of the ninth century; some hardy Norsemen, who in 1235 voyaged to the shores of Greenland and beyond the Arctic Circle; Sebastian Cabot, a Venetian, who sailed with five ships in 1497, and who discovered the land named "Prima Vesta" and the island of St. John (Newfoundland) and Labrador; and in 1553 the discovery of Nova Zembla by Sir Hugh Willoughby, who found land in latitude 72 degrees, which he named Willoughby Land; from thence returning to Arzina, in Lapland, where occurred one of the saddest events ever chronicled in the Northern Seas, as, in his endeavor to winter there, Sir Hugh Willoughby and his whole party lost their lives, being literally frozen to death.

And again in 1578 Sir Martin Frobisher discovered Frobisher's Strait; and in 1587 John Davis discovered the strait which bears his name; that in 1607 Henry Hudson succeeded in reaching lat  $81^{\circ} 50''$  N., and in subsequent expeditions discovered and named Hudson Strait and Hudson's Bay; and in 1615 Wm. Baffin, with Robert Bylot, who sailed

in the ship "Discovery" in search of a north-west passage, when they reached Smith's Sound, and subsequently the inlet which bears Baffin's name.

The lecturer then gave a graphic outline of the history of the noble Sir John Franklin, stating that there was no Arctic explorer of greater interest to Australians, remembering that he served on board the "Investigator" under Captain Flinders in the survey of the Australian coast in 1802. Returning to England he served as signal midshipman on the "Bellerophon" in the Battle of Trafalgar in 1805; five years later he was engaged by the English Government on a survey expedition to the inclement shores of North America; travelling in three years more than 5,000 miles he and his ship's company endured the greatest privations, during which two-thirds of his party lost their lives; from 1825 to 1827 he was again engaged in exploring the North American coast, when for his valuable services he was knighted. In May, 1845, Sir John Franklin set out in command of the *Erebus* and *Terror* on what proved to be his last Arctic expedition. It was when skirting the shores of Boothia Felix that the gallant struggle of the two vessels came to an end for ever, the ice closing immovably round them, from which moment its deadly embrace never for a moment relaxed. Seeing that for an awful period of fifty-seven days—from early September, 1846, until late in April, 1848, the hapless crew were tight gripped in an icy prison, from which at last the desperate remains of them broke out only to die. The last letter Sir John wrote to Lady Franklin, from Whalefish Island, in Disco Bay, and dated July 1, 1845, a letter full of pathos, ended with these prophetic words:—"I have written to my dearest friends to comfort and assist you with their best counsel. To the Almighty's care I commit you. I trust He will shield you under His wings and grant the continual aid of His Holy Spirit; and that God may bless and support you is, and will be, the constant prayer of your most affectionate husband, JOHN FRANKLIN." The party was last seen and spoken with by a whaler, Captain Dannet, on July 26 (who brought home this letter), and who then reported to a London paper that "Sir John Franklin and his party were all well and in remarkable spirits, expecting to finish their operations in good time." They were then in Melville Bay, Davis Strait, made fast to an iceberg, in lat  $74^{\circ} 48''$ , long.  $61^{\circ} 15''$  W. Many years were to elapse after this before the mystery of their tragic end was to be unveiled." No tidings of the expedition having reached England, the country became alarmed, and for nearly seventeen years one expedition after another was

sent out, some equipped by Government and others by private enterprise—one, in 1848, with Sir Jas. Ross in command of the "Enterprise" and the "Investigator." In 1850 Captain Ommaney and Captain Austin, in the "Assistance" and the "Resolute," discovered on the south shore of North Devon unmistakable traces of a winter encampment, and later on Beachy Island the graves of two seamen and a marine.

To Lady Franklin herself, who equipped at her own expense the yacht Fox in 1857, was granted the unspeakable comfort of discovering, through Sir Leopold McClintock, the principal relics of the ill-fated expedition. On May 29, 1859, the party, having reached the westernmost point of King William Island, discovered on the following day various sad relics, consisting of a large boat, two human skeletons, several guns, a Bible, a number of books and other articles. A cairn was also discovered at Cape Herschel with a record which told a part of the story of the expedition. From these sad relics and other information we learn of the noble Franklin that on June 11, 1848, he set sail to the haven of eternal rest—he died and was laid beneath the white boulders, which, in their natural drift southwards, when the winter broke, bore him towards those very shores he had been the first to conquer. He died, and therefore, with Moses, no man knoweth of his sepulchre to this day. And in his tragic end we can only think of that lofty utterance by the great Athenian orator, "The whole earth is the sepulchre of great men."

The sad and thrilling story of the voyage of the "Jeannette," and the heroism and self-sacrifice of the commander, Lieutenant G. W. De Long, was listened to with the greatest interest. The lecture, it should be remarked, was illustrated by beautiful lantern slides, and on the screen was shown a facsimile of the last page in De Long's journal. It read as follows:—"October 23—Everybody pretty weak. Slept or rested all day. October 24—A hard night. 25th—Blank. 26th—Blank. 27th—Iversen broke down. 28th—Iversen died during early morning. 29th—Dressler died during the night. 30th—Boyd and Garty died. Collins dying." The "Jeannette" was in a sense the pioneer of the "Fram," who steered in the track of her wreckage, and attained those high parallels recorded in "Farthest North." The lecturer then reviewed in graphic and interesting manner what was in his opinion the grandest and most successful scientific expedition that the world had ever known—the Norwegian polar expedition of 1893 to 1896, led by Dr. Fridtjof Nansen. *Inter alia*, Mr. Wilkinson remarked:—"It was in February, 1897, that Dr. Nansen arrived in London, and on

the 5th of that month the Royal Societies' Club (of which I was a member) had the honor of entertaining him and the other leading Arctic explorers at dinner. As it was Nansen's first appearance in public, the occasion was marked by an unusual degree of interest, and I do not know of any function that has ever given me greater pleasure. On each member and guest arriving he was introduced to the great explorer by the President of the Club (Sir Clements Markham, an old Arctic explorer himself), and I shall never forget the hearty grasp of the brave and stalwart Norwegian, the grave but impressive bearing of that noble figure, or the glance of that keen, fearless eye. One felt in gazing at Nansen that there was indeed a man, dauntless, determined, and as true as steel. After dinner Nansen gave us a short resumé in English, and in very simple language, of his experiences during the memorable expedition, and this was delivered with modesty and gentleness, but yet with such power as to enchain the attention of all present." In referring to the last but sad record of Baron Toll, the lecturer concluded:—"This is the penalty, this is the high price to be paid, and although at the outset of many an expedition such a fate is almost foreseen, almost anticipated, yet does each explorer press onwards, undeterred by the privations, and dangers in prospect, with De Long's motto ever before him—"Hope on, hope ever"—and so it will be to the end, whatever hardships, if even face to face with death himself, until at last the battle is won, the goal is reached, and the victor—it may be with hands and feet frozen—is ushered into the presence of the mystic spirit of the North herself, who, although hitherto holding undisputed sway, now hails the approach of the victor, and with her own icy coronet crowns him as conqueror of the North."

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# John Ainsworth Horrocks' Journal.

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John Ainsworth Horrocks, an extract from whose Journal is now annexed, was born at Penwortham Hall, Lancashire, on March 22, 1818. Years afterwards, in 1837, he was so captivated with the enterprise of the South Australian colonization scheme that he and his brother Eustace (with their manservant, John Green) decided to emigrate, and left London for Adelaide in Captain Fell's ship, with the late Judge Cooper and his wife as fellow-passengers, in October 1838, and landing at South Australia on March 22, 1839.

Upon his arrival Mr. Horrocks took up land on the Hutt River and began grazing both sheep and cattle. Very soon after, he started exploring, when he discovered Mount Horrocks and the country near Clare, besides a large tract of country beyond the Broughton River, which he named the Gulnare Plains, a country which was soon after settled upon by several who in after days took a leading part in the history of the colony, viz., Messrs. G. C. Hawker, J. B. Hughes, Gleeson, Pine, and others.

In 1846 Mr. Horrocks organised what proved his last exploring party, and but for the fatal accident which so unhappily terminated the expedition, he would doubtless have left a high record in the history of exploration, and would probably have traversed a great deal of the country afterwards explored by his successors, Warburton and Stuart.

## COPY OF JOHN AINSWORTH HORROCKS' JOURNAL.

July 29, 1846, Monday.—Left Penwortham village at 12 and arrived one mile north of the stockyard on the North River at 6 o'clock—twelve miles north. The horses were very awkward at starting, not having previously been in harness together. Afterwards they travelled well, and promised to be a very good team. The axletree broke, 'but fortunately we were not far from Mr. Gleeson's village blacksmith, who made a capital job of it.

July 30, 11 a.m., North—We got thirteen goats from Mr. Robinson's station, on the Hutt River. A milch goat, a present from Mrs. Robinson, was obliged to be left, as they were not able to separate it from the flock. We started at a quarter to 11, camped at a quarter past 2, passed Mr.

Hawker's head station, and camped about seven miles from the Broughton. The roads and places very heavy and boggy. Killed a goat—a very poor one.

July 31.—In the middle watch last night the goats rushed by the man on watch, probably having scented a wild dog. They were fortunately all found this morning about a mile from the camp. Started at 11 a.m.; camped on the second crossing of the Broughton at 5 p.m. It rained hard through the day. Twice we got deeply bogged, and were obliged to unload each time and carry the things across. The last time we had to pass through about fifteen yards of water 2 ft. deep. Very little wood for the fire; we burnt grass tree, which emits a strong aromatic smell. Having fastened the leading goat by a tether, the others stopped quietly with him. Last night the wind and rain were very heavy, capsizing the men's tent and tearing mine nearly all round the bottom. We started at 11 with half a load to cross the third place of the Broughton, and unloaded about two miles on the north side, when the cart returned for the remainder of the load, which was quite enough for the horses to bring, considering the boggy state of the ground and hilly country.

We reached Mr. Hughes' station about 10 o'clock, when I decided on sending back Mr. Theatstone to procure another cart and horse. Stopped at Mr. Hughes' head station to rest the horses and men. It rained hard during the day. Left the biscuit, sago, rice, and barrels for Mr. Theatstone to bring on when he returns from Penwortham village.

August 1, 1846, 12 a.m., N.N.W.—After travelling three miles through gentle rising ground we came to Gulnare Plains, so called by me five years previously after a favorite dog of mine, which provided myself and three others with emus, our only food, having killed seven within four days, and the two last of the number he killed within ten minutes. About ten miles from where we camped the ground was very soft and sticky, and gave the horses hard work to drag the cart after them. Lately there have been wells sunk on the rising ground to the westward of the plains, which has enabled Mr. Hughes to occupy a large tract of country and make capital sheep runs. About five minutes previous to camping, the camel bit Garlick severely on the head—two wounds of great length above his temples and another severe gash on his cheek. I dressed them instantly and applied sticking plaster. He (the camel) had in the morning taken one of the goats in his mouth across the loins, and would have broken his back if Jimmy had not speedily run to its rescue.

Sunday, August 2, 1846, 13 M., N.N.W.—Last night it

rained hard, and was very cold. We started at half-past ten and camped on Rocky River at a quarter to 3 p.m. We first came to the river five miles from the last night's camp; the ground to it undulations and gravelled in places. Sent Mr. Gill to the Messrs. Hughes for a little mutton, who were kind enough to send in a leg; the last sheep station we shall pass. Their new station is lately formed, and is situated on the west of the river in a fine grassy, hilly country, well timbered, but very indifferently watered in the summer season. In the bed of the river are gum-trees, but rather stunted.

Monday, August 3. 11 M., N.N.W.—We started at 10, reached Mr. White's station at 3 p.m. The country improved every mile. The hills on the west of the river well timbered, and those on the east open and well grassed. In about nine miles we left Rocky River and continued on White's Creek. The water in the channels was running rapidly. This part of the country is beautifully adapted for a cattle station, and its present occupier has about 11,000 head running on it. The ranges are rich in minerals. A splendid survey of 20,000 acres has lately been mapped out by the sapper and miner. Mr. Gill has taken several beautiful sketches in the vicinity.

Tuesday, August 4, 1846.—Stopped at Mr. White's to recruit the horses and waiting for Mr. Theatstone's arrival with another cart; the load too heavy for the present state of the ground. Jimmy Moorhouse wounded a black swan. Mr. White rode to a gum-tree in Flinders Range with Mr. Gill to take a sketch of the north of the gulf and the hills on the opposite road.

Wednesday, August 5.—I remained at Mr. White's. A black named Kelly has promised to show us a pass through ranges by Mount Brown. Theatstone arrived with a cart and horse, making my party and outfit consisting of myself, Theatstone second in command, Mr. Gill landscape painter, Kilroy driver to one-horse team, Garlick tent-keeper, and Jimmy Moorhouse a native goatherd, two carts, six horses, one camel, and twelve goats.

Thursday, August 6.—Preparing to start to-morrow. Mending harness, cobbles, and camel's saddle, put all the provisions in one cart, and tent, bedding, &c., &c., in the light cart. Killed a calf, a present from Mr. White.

Friday, August 7, 15 M., N.N.W.—Started at a quarter to 11, camped at a quarter past 4. After five miles, over grassy, undulating hills, reached Wild Dog Creek, which we followed down for seven miles. We then turned to the north-west, and in three miles over very boggy, barren, and strong



ground reached Malcolm and Campbell's cattle station, about one and a half miles from the foot of Mount Remarkable. The country for the last eight miles covered with gums and box-trees, and the hills partially with scrub. The station is well situated in a large grassy plain, and is at present occupied by 500 head of cattle. Before starting this morning a shepherd of Mr. Robinson's, distant from Mr. White's about two miles, reported to the police at Mr. White's station the robbery of twenty-two sheep during the night previous.

Saturday, August 8.—Sent Kelly (a black) back again to Mr. White's for a bag containing the men's clothing, which was forgotten to be put on the dray yesterday. 8 M., W.N.W.—Started at 11. Camped on the Third Creek from last night's station. Passed over a well-grassed country partially covered over with stones, and the ground in places very boggy.

Sunday, August 9, 3 M., N.N.W.—The ground being very heavy we put extra horses on each dray. Camped on the edge of the scrub by stony point. Capital feed and rain and water. Campbell accompanied us to show a pass through the ranges. On leaving his station he gave us butter and part of a calf. Their hospitality was unbounded.

Monday, August 10.—Accompanied by Campbell, I went in search of a pass through the ranges. We found a tolerable place, but shall be obliged to carry the load on horse and camel back part of the way. Had all our linen washed and harness put in order.

Tuesday, August 11.—Campbell returned to his station. We started at 11, but had not proceeded more than one and a half miles W. when an axletree broke asunder. Sent back Kilroy to Mr. White's to endeavor to procure another.

Wednesday and Thursday, 12th and 13th.—Made an excursion to the top of Flinders Range. The top very rocky; composed of a red and grey stone, and very hard. The sides, near the bottom, red slate in strata of from  $\frac{1}{8}$  to  $\frac{1}{2}$  in. in thickness. The night very frosty. The horses slept uncommonly well about the camp, and are looking in good condition for their route across the plain. After leaving this range the view to the N.W. is very cheerless. One hill is distant about 100 miles in that course. Fires seen about thirty miles off. Same route a prospect of there being better.

Friday, August 14.—Last night bitterly cold from a very hard frost. The goats, with the exception of one, are very lame. They amused themselves last night by leaping on our tent and tearing it in several places. They are decidedly preferable to sheep in an excursion, as they give tongue imme-

diately they are caught, so that the natives could not take any without being heard. Theatstone and Jimmy went out kangaroo-hunting, and brought home a doe, which Jimmy declined to feast upon, as the young blackfellows are told by the old men some calamity is sure to happen to them if they touch one, thereby securing to themselves a larger amount of meat in their hunting excursions. When I told Jimmy how ridiculous it was for him to suffer hunger when he saw it did not injure us, he said we, being whites, it was harmless, and mentioned a black of his tribe having been lame in his foot, also another boy having been smashed by a star, the consequences of eating a female kangaroo.

Saturday, August 15, 1846.—Kilroy returned from White's bringing two half-axles and boxes. Mr. White behaved in the kindest way possible, having told Kilroy to select from three drags any axletree he might think suitable, and eventually they were obliged to break in pieces two old wheels to get out the boxes. Immediately on his return we set to work, and managed, by good fortune, to get out the box from the wheel without damage.

Sunday, August 16.—Completed the damage done to the provision drag, and got ready for a start in the morning. Kelly (a black) promised to accompany us to the head of the gulf with his lubra (wife), who is a native of that country. In the night he decamped, taking her with him, having told one of the men he was afraid he should lose his lubra if she went back to her friends. He had only stolen her from a native policeman a few days previous.

Monday, August 17.—Started very early with one drag with four horses. They reached the top of the hill in safety, and then returned for the other drag. In the meantime I took the camel and the provisions down the range through a nasty narrow valley on him. He answered very well, considering he had never carried a load above two hundred yards. He got enraged one time and bit two bags of flour, making in each a large hole. At another time he felt his load (350 lb.) getting a little hard, when he decamped, and left the load scattered all down the pass. The two drags were got safely to the bottom of the first steep hill; when, in going along a sideling, with two men holding on, they each got a capsized, without doing much injury. The quicksilver bottle was broken and tumbled on the ground. With a great deal of trouble most of it was picked up again. The two drags remained for the night where they were capsized.

Tuesday, 18th, 1846, 1½ M., N.W.—Returned for the

drags about one and a half mile up the valley, where we camped and got one of them safely down. By the evening we dug a road over all the places where the creek crossed, and collected all the items scattered on the road.

Wednesday, August 19, 4½ M., N.W.—Mr. Theatstone and Jimmy Moorhouse cut away several crossings in the creek towards the plain, which made the road outwards good. In the meantime Kilroy, Mr. Gill, and myself went up the creek for the provision drag, which we at last got to the camp. It required all our utmost strength to keep from capsizing by holding on the upper side with ropes. When we reached the bottom of the creek with our loads we took the horses up the gully, N., to water about one and a half miles. We camped in a path of wild oats three miles from the creek and four and a half from camp.

August 20, 22 miles, N.N.W.—Started at a quarter to 9 a.m. Camped on creek three miles from Depot Creek at 6. over a most desolate plain filled with watercourses, and very stony, covered with salsolaceous plants. Killed three kangaroos. The dogs not showing, we only got one. Saw in the creek a most gigantic geranium, a beautiful light bluish-purple. In the creek we camped Mr. Gill saw five natives. He was then in search of water, and endeavored to make them understand it, but to no purpose. They appeared dreadfully alarmed, and he returned to acquaint me when they decamped. They have been much disturbed by the police whilst they have been hunting for the murderers of two shepherds of Mr. Tennant's and taking from him 900 sheep.

Friday, August 21, 4 miles, N.N.E.—Reached Depot Creek at 11, the horses very much fatigued, not having had any water for two nights, and yesterday and to-day very warm. We found the spring about one mile up the creek, and got good water by digging on the gravel. The horses drank each on an average 45 quarts of water. Good oaten grass about Eyre's old camp. The traces still visible in places, though above six years old. We did our might to perpetuate his memory in this country by taking our drags on his tracks and mark the route to water for future bushmen. Killed a goat—the one that has given us so much trouble, and which Jimmy was delighted to see slaughtered, having in his hatred to the animal promised Garlick, the tent-keeper, a pint of ale if he would kill it the next.

Saturday, August 22.—Mr. Gill accompanied me over table-topped hills bearing 16 degrees north of west. We crossed

the first creek from Lake Torrens about nine miles and the second creek ten miles from the camp. The ground in both places was tolerably firm. The land on both shores and the island in the centre sandy, and producing a little grass. Eight miles further in the tableland very stony and desolate. The country round about covered with stunted and salsolaceous trees and shrubs. In passing between the undulating land we saw two natives—a woman with a child. We rode up to her. She was dreadfully frightened at first. By degrees I persuaded her to go with us to water. On the way we saw five more natives; none of them would approach us—all children. After passing over very stony ground she brought us to a gully running south, where we saw several more natives. These she beckoned to run away. Mr. Gill leading my horse, I advanced and made signs of peace, when two men and a young boy, armed with several jagged spears, came to meet me. They sent away the women and children, and were very sulky. For a long time they would not show us water, which eventually was within fifty yards, the remains of rain. They appeared alarmed at the horses. After we had all drank they departed the old man gesticulating and threatening us. I fired off a gun to see if it would intimidate them, but to no purpose, the old man appearing to wish the other two to attack us. He stopped until we went round the side of the hill, when I left Mr. Gill and ascended to the top. About sixty or seventy miles north-west were two rises, a table and the other a small round hill about two miles in length. All the space between and on both sides for many miles a large plain covered with stunted trees and scrub, with innumerable sand rises. The view I had convinced me that it was impossible to expect to find any country in that direction, and, moreover, too late in the season to traverse it. I descended the hill, which is very steep and rocky, and made up my mind to return to the camp and follow up the table land hills with the camel. We returned to the water in search of a quart-pot and compass Mr. Gill had dropped, when we saw the natives had made three camps in different directions, evidently watching us. We passed on, not finding the articles, and saw about half a mile further on an old native. We passed him at about 200 yards, when he was very ferocious and threatening. We had not proceeded more than 100 yards further on, when we heard a shout on a hill behind us, and on looking back saw six natives after us with their spears. We halted and let them come within 200 yards, when we fired three shots. This stopped their progress, but not their rage. They did not seem to know what danger there was in a gun.

They retreated about fifty yards, and then set a scrub on fire. We reloaded after some trouble, as the cartridges were all undone, and the carbine I had was rather too small in the bore for the balls, which obliged me to pick up a stone and hammer it down. We then advanced about 80 yards, when Mr. Gill fired one shot. They laughed at us, as they thought by getting behind a small scrub the balls would not harm them. A young man had on his head a part of a red worsted cap, and knew my knife by name, evidently having seen Europeans. It strikes me I saw this part of the cap in the possession of a man named Southey, lately murdered by the natives, and one of his spears had the marks of blood about six inches along the point. The two murdered men had guns, but neither of them would go off, which inclines me to think these natives had a share in the murder and robbery of 900 sheep, and that they thought our guns were useless. We then continued our journey to the island between the creeks, where we slept, and had a little grass for the horses. It was the only grass we had seen all day.

Sunday, August 23, 1846.—Returned to the camp about nine miles. Saw on the salt creek several tracks of two-toed emus, very large. The drainage from the hills is into lakes, which dry up into very hard crust, the horses scarcely making any impression. On the back of one I found a quantity of talc.

Monday, August 24.—Removed our camp nearer the water, and found some tobacco plants in the creek.

Tuesday and Wednesday, August 25 and 26.—Mr. Gill not having completed his sketches hindered us from leaving the camp, as he is to accompany me to the north-west.

Thursday, August 27.—Ascended the mount too late to take my bearings. Before starting I saw four hills bearing 32 to 35 degrees north of east distant about sixty miles, which I immediately determined to explore previous to going on to the west coast of the lake.

This was all that Mr. Horrocks wrote in his private journal with his own handwriting that reached England; and it was while exploring the four hills bearing north-east that the accident occurred (hereafter related). He had traversed the sixty miles with Mr. Gill on the camel, and Kilroy, the driver, and on reaching the salt lake found the water was brackish. After the accident, and when poor John had reached the depot, where no medical man came, he ordered everything to be returned to the colonists exactly in the same order he had received them, and dictated the following letter:

Depot Creek,  
September 8, 1846.

Mr. E. Platts,

Hon. Secretary Northern Expedition.

It is with the greatest regret I have to inform the Committee and my fellow-colonists who subscribed towards the expenses of the expedition of its untimely and unfortunate termination. Having made an excursion, accompanied by Mr. Gill, to the table land on the west of Lake Torrens, to ascertain if it were practicable to form a depot in that neighborhood, and not succeeding in finding either water or grass, I returned to Depot Creek, determined to make an excursion with the camel, as it was impracticable to take horses sufficiently far, from what I saw of the desolate and barren country.

Having ascertained the morning previous to our departure, from the summit of the range behind Depot Creek, the bearings of the high land seen by Messrs. Eyre and Darke to be 32 degrees north of west by compass, and the distance I considered about eight miles, I determined to make straight for that land.

With this view I started on the 28th of August, accompanied by Mr. Gill and Bernard Kilroy, with provisions sufficient for three weeks and ten gallons of water, the camel being loaded with about 356 lb. Our first day's journey brought us to one of the creeks running from Lake Torrens into the Gulf, distance about ten miles. The last six miles was over red sandhills, partially covered with oaten grass.

The second day's journey we camped on the west side of the table land, distance fifteen miles. The first eight miles over a continuation of sandhills, the last seven miles over a country covered with stones and salsolaceous plants.

The next day we entered a light scrub and very heavy sandhills, fifteen miles.

The day following scrub and very heavy sandhills, and plain all covered with salsolaceous plants.

The day after, having made six miles, we reached a large saltwater lake about ten miles long and five miles broad. The land we were making for we distinctly saw I supposed about twenty-five miles distant. In rounding this lake, which I named Lake Gill, Bernard Kilroy, who was walking ahead of the party, stopped, saying he saw a beautiful bird, which he recommended me to shoot to add to the collection.

My gun being loaded with slugs in one barrel and ball in the other, I stopped the camel to get at the shot belt, which I could not get without his laying down.

Whilst Mr. Gill was unfastening it I was screwing the ramrod into the wad over the slugs, standing close alongside of the camel. At this moment the camel gave a lurch to one side, and caught his pack in the cock of my gun, which discharged the barrel I was unloading, the contents of which first took off the middle fingers of my right hand between the second and third joints, and entered my left cheek by my lower jaw, knocking out a row of teeth from my upper jaw.

In this dilemma I was fortunate in having two most excellent companions. We were now sixty-five miles from the depot or any water that we knew of, and all the water remaining was about five gallons. With very great reluctance I consented to Bernard Kilroy's entreaty for him to return back and fetch Mr. Theatstone and two horses, as I knew part of the country was inhabited by a fierce lot of natives, as they had attacked Mr. Gill and myself on my previous excursion. He said he was not afraid. Therefore he left and reached the Depot the next morning by about 9 o'clock. Having missed the tracks during the night, he could not have walked less than 100 miles from the morning of the accident to the time he reached the Depot, having most bravely accomplished his task.

Mr. Gill stopped to nurse me, and his attention and kindness were not to be surpassed. Considering the distance we were away and the uncertainty of Kilroy's reaching the Depot, Mr. Gill showed himself to be a brave and steady companion by remaining with me. He has taken several sketches of this country, which will show to those interested how very improbable it is that any stations can be made to the west of Lake Torrens. All the drainage is into fresh water ponds and salt lakes. The ponds are apparently dry in a very few days after rain, and the water which is in them being of a dark red ochreous color, the size of them varying from half an acre to five acres, and when full not more than 6 in. in depth.

The hill we were making for is table topped, with precipitous sides, about seven miles in length. To the N.N.E. are three more smaller hills, and continuing on from them is a low land, gradually diminishing in height until it gains the land running from Lake Torrens. I did not find a spot where there was any probability of finding a spring. Grass there is none except a little wild oaten grass, which grows in the sand here and there, and that not sufficient to feed a horse.

It is with extreme sorrow I am obliged to terminate the expedition, as the two that were with me, the camel and myself were in excellent working condition; and had it not

been for this accident it was my intention to have followed down this low land running to the N.N.E., and returned by Lake Torrens, a distance of between 300 and 400 miles; and would then have been able to have given a more accurate account, although I am convinced we should not have found one acre of ground to make a station on, judging from the land I have gone over and what I could discern with my eye, there being a sterile sameness throughout.

Had it been earlier in the season and my wounds healed up I should have started again.

On Sunday last I returned to the Depot, horses, myself, and party all completely knocked up.

I remain, yours truly,

J. HORROCKS (Signed).

Mr. E. Platts, Hon. Secretary Northern Expedition.

Recorded in Diary by Mr. Gill.

This noble, clear, and most unselfish letter was dictated by John, and signed.

No medical man coming to the Depot, Kilroy accompanied him towards home, passing the different stations in his wounded state. All gave him what assistance they could. The rain came on, and he at length reached his village. The native boy went on foot all night for help from Adelaide. Green washed him and changed his poor master's dress and made him comfortable. Mr. Robinson gave up his cottage to him, and all the villagers came to see him. He related little laughable anecdotes to them, and they went away comforted, saying he would surely live. Next day Dr. Nott, his old friend, came, and poor Arthur, whose affectionate heart was most deeply grieved; and he wrote to his mother after all was over and the hope and pride of the family laid low in his grave. Green then went to England to see them, and finding all had gone to Baden Baden, followed them there.

The meeting was too sad. Green, who had nursed his master to the last, related every incident, and poor John's grief and prayers for God to protect his beloved mother and sisters, when he their hope and support was gone.

He died peacefully as a child, and resigned to God's will. His sufferings were agonising, but he was easy between the fearful convulsions, and at the end of the third day after he had reached his village he died without a struggle at last, having given orders for his grave to be bricked in, and asked Theatstone to carve his name on a stone, telling him what he wanted written on it. Mr. Jacobs was with him also.

In a letter to his sister, written March 14, 1846, he says: "I was lately over the Burra Burra Mine. It has only been



worked four months, and they have raised about 3,000 tons. It is said to be the most extraordinary mine ever heard of. Some of the lodes are 33 ft. broad. The copper one is from 40 to 55 per cent. I will send you home some specimens. In six weeks I am going to explore with another man and black-boy to the N.N.W. of Mount Arden. Captain Sturt has come back after being eighteen months absent, and has discovered nothing but a desert. He has undergone many dangers and privations, yet he looks very well.

We then are going out with the camel, and shall be absent about four months. I have great hopes of finding a country, and it is looked forward to with great interest by the old colonists. We start from Mount Arden, 250 miles north of Adelaide, and we know that we have eighty miles of a dense scrub to get through before we can reach any water. However, by God's help, we may do great good, and get through all dangers. It suits my temper, as I want a more stirring life.

I shall ride over and see Arthur shortly. Green is going home this next shearing to see his parents. He has about 1,500 sheep and seven or eight hundred ewes in lamb, so that he is doing well. . . . Now I am in better spirits I shall write oftener, and hope every time to give you good news. My health is good, though I am not so heavy by 3 stone as when in England; so much the better for the horses that have to carry my carcass.

The weather is very hot, and I have seventy-five miles to ride to-morrow."

Your ever most affectionate brother,

JOHN AINSWORTH HORROCKS.

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# Who Discovered Lake Alexandrina ?

BY THOMAS GILL, I.S.O.

In March, 1891, I accompanied the Hon. Thomas Playford to Sydney, when he very kindly obtained the consent of the late Sir Henry Parkes to my examining and copying such as I desired of the original and unpublished records in the Chief Secretary's Office relating to the first settlements at Port Essington, Fort Wellington, and King George's Sound prior to the year 1832.

Captain Matthew Flinders, R.N., in his examination of the coastline of South Australia and Victoria, did not discover any outlet of a large river, and as it was known in Sydney that the Macquarie, Darling, Lachlan, and Murrumbidgee Rivers flowed southward and westward, various conjectures were hazarded as to whether their outlets terminated in a central shoal sea or lake or were lost in marshes in the interior.

In November, 1828, Captain Charles Sturt examined the Macquarie River, and named the Darling; and twelve months later led an exploring party to trace the Murrumbidgee. Captain Sturt left Sydney on November 3, 1829, and as nothing had been heard of his party for more than three months the New South Wales Government dispatched H.M. Colonial cutter "Dart," in February, 1830, from Sydney, and shortly afterwards H.M. Colonial schooner "Isabella," *en route* from King George's Sound to Sydney, also had instructions to examine the coastline of South Australia to ascertain whether any tidings could be obtained of Sturt's party. The "Dart" remained in South Australian waters from March 3 to the middle of April, 1830. The "Isabella" returned to Sydney on March 29, 1830, and reported that no traces of Captain Sturt could be found, and although she dodged twelve days on the coast she did not see the "Dart."

Unfortunately I could not find any copy of the logbook of the "Isabella," but a copy was found of the logbook of the "Dart," which is appended hereto. This document has never been published, and this fact probably accounts for the absence from the chart of South Australia of the only name given to a headland discovered during that visit and named after the vessel. Some years ago I addressed the Surveyor-General, asking whether the name could not be restored on the maps,

and I received a reply that the sandbank named Dart Point had been washed away. Not satisfied with the reply, I sometime later accompanied Captain Clare in the s.s. "Governor Musgrave" to Hardwicke Bay to try and identify the point named by the officer of the "Dart." Captain Clare, having carefully read the copy of the logbook, was satisfied that the original "Dart Point" is now known as "Point Souttar," the present name having been bestowed on that point when a detailed survey was made of Spencer's Gulf. It appears probable that the report of the master of the "Dart" was not communicated to the Admiralty nor to the Surveyor-General of New South Wales, and as a consequence "Dart Point" never appeared in any chart of the South Australian coast.

We now come to the question, "Who discovered Lake Alexandrina?" Appended to the logbook of the "Dart" (which is printed in this article) is an important letter from Captain Forbes, of "The Prince of Denmark," a vessel then engaged in sealing on the south coast of Australia.

On January 20, 1829, Captain Forbes, in a letter dated from River Tamar (Tasmania), reported to the Colonial Secretary, Sydney, the discovery of the lake called by Captain Sturt "Lake Alexandrina." This letter apparently did not reach Sydney until conveyed thither by the master of the "Dart" in May, 1830. Captain Sturt returned to Sydney from his trip down the Murray on May 25, 1830.

Amongst the old records is a second letter from Captain Forbes, written to Lieutenant Sleeman, the Commandant at King George's Sound, and dated May 13, 1829. Lieutenant Sleeman forwarded this report on the day following to Sydney, where it probably arrived during June, 1829, at least four or five months prior to Captain Sturt's departure southwards. To neither of these letters does Captain Sturt make any reference in his journals.

Lieutenant Sleeman, in his letter of May 14, 1829, says: "The schooner 'Prince of Denmark' (sealer) arrived here on the 8th instant, and is still in the harbor repairing her foremast, which was carried away some time ago. Her master, Mr. Forbes, who appears to be an intelligent man, has sent me an account of an inland lake, which his men discovered on their passage hither, which I beg to transmit for the information of His Excellency the Governor."

Again, on July 9, 1829, Lieutenant Sleeman reported: "Mr. Forbes (master of this vessel) intends to examine the interior lake named in my last despatch on his return to Sydney."

The following is a copy of the logbook of the "Dart" and the letter of Captain Forbes:—

Master Attendant's Office.

Sydney, 4th May, 1830.

Sir—I have the honor to report to you the arrival this morning of H.M. Colonial cutter "Dart" from the Gulf of St. Vincent after an unsuccessful search along that part of the coast after the expedition under Captain Sturt, for the information of His Excellency the Governor. I now hand you an extract from the vessel's logbook from the time of her making Cape Bridgewater to the date of her taking her departure from Kangaroo Island.

I have the honor to be, Sir,

Your most obedient servant,

JOHN NICHOLSON,

Master Attendant.

The Honorable the Colonial Secretary, &c., &c., &c.

#### EXTRACTS FROM LOGBOOK.

3rd March, 1830.—At 10 a.m. centre of Baye de Rivoli bore E. by S. and Cape Jaffa N.N.E. At noon altered course and stood towards Cape Jaffa. Passed between reef and Cape Jaffa.

4th March.—At 8 a.m. saw high land to the east of Cape Jervis bearing N.  $\frac{1}{2}$  E. and N.

5th March.—At midnight came to anchor off Kangaroo Head.

6th.—Coursed north up Gulf St. Vincent, and at 6 p.m. hove to in 5 fathoms soft grey sand about three miles from the western shore.

7th.—Latitude 34' 57" S. Altered course at 6 a.m. to S.E. by E. Mount Lofty in sight, bearing E.S.E. At 6 p.m. anchored in seven fathoms fine grey sand about four miles off shore.

8th.—At noon Mount Lofty bore S.E. by E. The land near the shore on the eastern side of the Gulf is very low, behind which is a range of moderately high hills, whose elevation increase to the south'd. From abreast of Mount Lofty to the head of the Gulf the shore is lined with mangroves, with shoal water 4 and 5 miles from the shore. There are three very remarkable hummocks at the head of the Gulf, which, when sailing up, make like islands.

10th.—At noon the extremes of the land on the eastern side of the Gulf bearing N.E. and S.S.E. Latitude observed 34.56 S. At 6 p.m. tacked to westward. Mount Lofty bore E. by N., distant from shore about four miles. The range of hills to the south of Mount Lofty are well wooded.

11th.—At 5 a.m. Cape Jervis bore E.S.E. and Kangaroo Island S.S.E. At noon Point Marsden bore S.W. by S., lat. 35.30 S. At four extremes of land on Yorke's Peninsula bore N.  $\frac{1}{2}$  W. and N.W. by W.  $\frac{1}{2}$  W. At 9 p.m. Althorpe Island bore E.  $\frac{1}{2}$  N.

12th.—At 9 a.m. Wedge Island bore S.W.  $\frac{1}{2}$  S., and the high land to the south of the Corny Point bore E. by S.  $\frac{1}{2}$  S., lat. 34.49. At 3 p.m. Corny Point bore E. by N. At 5 anchored in four and a half fathoms about one and a half miles from shore, and at 6 p.m. got out the jolly boat.

13th.—At 1 p.m. went on shore and found the land about this side of Hardwicke Bay to be well wooded. The soil is of a black and brown color, a quantity of which I brought on board with me for the purpose of taking it to Sydney.

14th.—At 10 a.m. tripped our anchor and swept the cutter nine or ten miles up Hardwicke Bay. At 3.30 came to anchor in five fathoms, sandy bottom. about two and a half or three miles off shore. Corny Point bearing W. and  $\frac{1}{2}$  S., and a projecting part of the land, which I named Dart Point, bore E.  $\frac{1}{2}$  N.

15th.—At 9 a.m. proceeded up Hardwicke Bay, keeping close in with the southern shore.

16th.—At noon a sandhill on the eastern shore of the Gulf bore E. by S., and Elbow Hill on the western side bore N.N.W., lat. 34.5 S. At 6 p.m. Point Riley distant seven or eight miles.

17th.—At noon Middle Mount bore N.W.  $\frac{1}{2}$  W. distant from the shore five miles. Lat. 33.24 S. At 3 p.m. Mount Young bore N.W., seven miles. At 6 p.m. Point Lowly bore W. by N. three miles.

19th.—At noon came to anchor half a mile from shore. This day at noon we are seven miles higher up the Gulf than Captain Flinders took the "Investigator." The channel about this part is very narrow, heavy sandbanks on each side, some of which are under water. Hoisted out the jolly boat and went on shore in search of fresh water, but did not succeed in finding any. The land near the shore on this side of the Gulf is low and barren. It is backed by a range of high flat-topped, barren land.

20th.—At 7 a.m. got under weigh and proceeded up towards the head of the Gulf. At 2.30 came to anchor in three fathoms, Curlew Point bearing W. by S. distance a quarter of a mile.

21st.—At 8 saw a fire on one of the mounts to the north of Mount Brown bearing N.E.  $\frac{1}{2}$  E.

23rd.—At 4 a.m. took three hands in the jolly boat and proceeded up towards the head of the Gulf. At 11 a.m. got up to the head, which terminated in mud and sand swamps. Saw a number of black swans. We dug in several places on the banks of the Gulf, but did not find any fresh water. At 9 returned to the cutter.

24th.—At 6 proceeded down the Gulf. At noon, lat. 34.48 S. At 6 p.m. Point Lowly bore S.W., distant three miles.

25th.—At 6 a.m. Hummock Hill bore W. At 8 Mount Young bore W.  $\frac{1}{2}$  S., and extremes of eastern land S.E.  $\frac{1}{2}$  S., lat. 33.13° S.

27th.—A sandhill bore S.E.  $\frac{1}{2}$  E., lat. 34.0 S.

28th.—At noon, lat. 34.18 S.

29th.—8 a.m., Wedge Island bore S. by W. and Thistle Island S.W. by W.

30th.—At 7 a.m. bore away for Port Lincoln to replenish our water, having only five gallons on board. The last week the crew have been on one quart per diem. At 5.15 round Cape Donington. At 6 came to anchor in Port Lincoln. Stamford Hill bearing S.S.E., distance from shore one mile.

31st March.—Anchored in two fathoms soft mud one mile from shore. Hoisted out jolly boat, and we filled one cask and two breakers with fresh water.

4th April.—At 4.30 saw a boat under sail coming up the harbor from Thistle Island. The master's name is John Campbell, a colored man. (Watered and ballasted at Port Lincoln.)

7th April.—At noon got under weigh and turned down the harbor. At 5 p.m. anchored in seven fathoms, Grantham Island bearing W. by S., and Stamford Hill E. by S.  $\frac{1}{2}$  S.

8th.—At 9 a.m. rounded Cape Donington, and at 2 p.m. anchored under lee of Thistle Island.

9th.—Learned from one man of a sealing party stationed on this island that there exists a very large sheet of water (part of which is fresh and part salt) about three days' journey from Cape Jervis and one from Encounter Bay. He states that from the highest land on the western side of it he could not discern its extent. Therefore does not know whether it may be a river or lake. He also states that the natives are very hospitable on that part of the coast, and have many canoes on the above-named sheet of water. The person above mentioned deserted a brig named the "Nereus" about five years past, and has been living with the natives on Cape Jervis for twelve months. He has travelled with them up the

east side of the Gulf of St. Vincent, and states that no river or other fresh water disembogues itself in that Gulf. He handed me a letter which was written by Captain Forbes, of the "Prince of Denmark," respecting the above sheet of water from his information, addressed to the Honorable the Colonial Secretary. Should I find any place of security for the cutter at Kangaroo Island I shall feel myself fully authorised to employ any whaleboat I may be able to get there, and run to Encounter Bay in her for the purpose of surveying the above lake or sheet of fresh and salt water, as it may prove of great importance to New South Wales.

Nothing further of any value appears in the copy of the logbook, which only extends to the 12th April. There is no record of a second visit to Kangaroo Island, nor is any further reference made to the proposed survey of the lake.

[Copy of letter referred to.]

"Schooner 'Prince of Denmark,'

"River Tamar, 20th January, 1829.

"Sir—I beg to state for your information that part of my sealing gang stationed at Kangaroo Island have reported to me that during their excursions into the interior of New Holland they discovered a very large lake of fresh water. They describe it as being very deep and of great extent, as they could not discern the termination of it from the highest land. The banks abound with kangaroo and the lake with fish. They also say that the natives are very friendly, and have a number of canoes upon it, and the land from their description must be rich. I regret my time did not permit me to examine it; but I propose doing so upon my return. The latitude of the place the men started from was 35.30, the longitude about 138.40, and from their account one and a half days' journey from the coast to the north eastward. I do not implicitly rely altogether upon their report of its extent, but I am satisfied from the plain tale they told and their wish to conduct me to it that a very large sheet of water lies in the position just pointed out; and if I may be allowed to hazard an opinion, making its way to the Gulf of St. Vincent, as the people say it bends to that direction. Should circumstances prevent my present intention of surveying it, any of the Government vessels going to King George's Sound might do it, and set a question of so much interest to New South Wales (if it does exist, which I have not the smallest doubt of) at rest." Not signed, but a second letter, dated 13th May, 1829, written at King George's Sound, and addressed to George Slessman, Esq., Commandant, King George's Sound, was signed

by Captain Forbes, it repeated the particulars of the above letter, and was practically a verbatim copy of it.

The then Governor of New South Wales (Sir Ralph Darling) endorsed the papers as follows: "It would appear from the log of the 'Dart' that there is no outlet from Lake Alexandrina into Gulf St. Vincent. (Signed) R. D. May 14th, 1830."

No reports of an examination of the lake accompanied the copy of the logbook when the documents were examined in March, 1891, but it is evident that Governor Darling had been furnished with additional information to that now printed.

Captain Forbes, in his letter, hazarded the opinion that the lake made its way into the Gulf of St. Vincent. Governor Darling, in the face of that report, said "it would appear from the logbook of the 'Dart' that there is no outlet from the lake into Gulf St. Vincent." From whence did Governor Darling's idea originate? Did the master of the 'Dart' examine the lake, as he suggested in his diary of 9th April, 1830? If so, what became of his report? Governor Darling could not have obtained his idea from any report of Captain Sturt, because Sturt had no time to examine the shores of the lake, and it is well known that owing to the representations made by Captain Sturt (who returned to Sydney a fortnight after Governor Darling penned his minute on the "Dart" papers), Captain Collet Barker, then Commandant at King George's Sound, received instructions from Sydney in February, 1831, to survey the eastern coastline of the Gulf St. Vincent, when en route to Sydney, "for the purpose of ascertaining if there were any outlet for the waters of Lake Alexandrina on that side of the Gulf."

The result of Captain Collet Barker's examination of the coastline of the Gulf, and the particulars of his tragic death, are recorded in Volume VI. of this Society's proceedings.

It is noteworthy that Governor Darling referred to the lake as "Lake Alexandrina," showing that Captain Sturt had named it before he returned to Sydney.

It is probable that the whole of the papers connected with the examination of the lake may still be in the Record Office in Sydney in a collected form; but whether or not Captain Forbes or the captain of the "Dart" made a survey of the lake it is proved beyond all doubt that Lake Alexandrina had been visited by sealers at least fifteen months before Captain Sturt and his little band of adventurers sailed over its waters in February, 1830.



# Frenchman's (Baudin's) Rock, Kangaroo Island.

BY C. E. OWEN SMYTH, I.S.O.

Having been deputed to arrange for the erection of a suitable protection for Frenchman's Rock, Kangaroo Island, the question arose whether the date on the stone, 1803, popularly supposed to have been altered by some vandal from 1802, was correct or otherwise. I was informed by members of the South Australian Geographical Society that the last figure had undoubtedly been a 2 originally, but had been altered into a 3. Personally, I was strongly of opinion that the carpenter of the French vessel "Geographe" had made the figure 3, whether in mistake or correctly, I did not know, but I noticed that he had used the sharp end of a marlin spike to put a "flemish" to the tail of some of his letters, and felt confident that as the 3 had a similarly finished tail, "old chips" had put the 3 on the stone.

Apparently it had been taken for granted that after Flinders and Baudin had spoken each other in Encounter Bay on April 8, 1802, the latter, acting on information received from Flinders, had gone straight to Hog Bay and watered at the Springs. Now, as I had to put up a plate with the correct date of Baudin's visit to Hog Bay, I thought the best way to settle the question once for all was to find out what Baudin said about it himself, so I procured from the Public Library Peron's book of Baudin's voyage. Poor Baudin did not live to write his book himself, for I found that he died in 1803 on his way back to France; but Peron, who was his naturalist, edited his journal.

On reading the account of the meeting with Flinders, I followed the course of the "Geographe," and found that she anchored one night in Antechamber Bay. When bad weather and sickness came later on she returned first to Tasmania and then to Sydney (Port Jackson) to re-victual and refit, arriving again in the waters of "Napoleon's

Land," as Baudin called South Australia, on December 27, 1802.

Starting from Cape Willoughby, Baudin sailed west round Kangaroo Island, which he named Dècrés' Island—Ile Dècrés (although Flinders had already named it). Cape Borda he called by its present name. He explored American River, where he spent some days apparently, as several drawings of much interest were made there by the artists of the expedition. He called American River Port Daché, and Nepean Bay Bougainville Bay. He went up American River, and found that only a narrow strip of land lay between it and the Southern Ocean, so he called the Eastern portion of the island Galissonniere Peninsula. He renamed Kangaroo Head, near which Flinders first landed on the island, Cape Delambre, and the same day he evidently anchored in Hog Bay, and sent the boats ashore for water, this being the first place on Kangaroo Island where he found good water. He named the place on his chart Anse des Sources (Cove of Springs), and in his journal it is called the little cove of springs. Evidently the carpenter went ashore to look after water casks, and spent his spare time while the boats were taking the water out to the ship in carving the now famous stone, which is alongside one of the springs. The following is Peron's account of the discovery of water, with a rough translation which I have made for those who do not understand the French. I have also added a copy of the letter which I have just written to Baron Hulot, the Secretary of the Geographical Society in Paris, with a translation attached.

#### TRANSLATION OF LETTER TO BARON HULOT.

South Australia.

Office of the Superintendent of Public Buildings,  
Works and Buildings Department,

Adelaide, August 31, 1906.

Sir—I have the honor to send you a photograph of Frenchman's Rock—Baudin's Stone—situated on Kangaroo Island at Hog Bay, in South Australia. On the chart of Captain Baudin, by Messieurs Freycinet and Boulanger, the exact place is called Cove of Springs—Dècrés' Island. I also have the pleasure to enclose a photograph of a monument erected under my direction by the Government and some admirers of M. Nicholas Baudin, captain of the French vessel "Le Geographe" and Commodore of the Expedition of Discovery to the Australian Continent, who landed on Kangaroo Island in January, 1803.

You will also find enclosed a small chart of the place where Baudin's stone is situated, as well as the position where the two vessels, English and French, of Flinders and Baudin, met one another in April, 1802, in Encounter Bay.

Accept, Sir, the assurance of my highest consideration.

C. E. OWEN SMYTH,  
Superintendent of Public Buildings,  
South Australia.

M. Le Baron Hulot,  
General Secretary of the Geographical Society,  
180, Boulevard St. Germain, Paris.

TRANSLATION OF PASSAGES FROM PERON'S EDITION OF BAUDIN'S  
JOURNALS.

"The Cape Delambre (Kangaroo Head of Flinders) formed the eastern end of the Bougainville Bay (Nepean Bay)."

"Two miles further over from this last cape we happened on the Little Cove of Springs (1), which deserves special record, because it was at this place alone on the island that we were able to procure fresh water. Some distance away is the Bay Guai Trouin (2), three or four miles across the opening, and extending about the same distance inland, and within which we had previously anchored in the preceding year."

"At this latter point the coast inclines to the S.S.E. as far as Cape Sané (3), which we spoke about before. From the peculiar configuration of the eastern portion of Dècrés' Island, it follows that the area between Port Daché (4), and this last cape forms a peninsula twenty-five miles long by a league broad at the narrowest part, and which we have named Galis-onniere's Peninsula, after the conqueror of Admiral Byng."

It might here be pointed out that the movement to provide a suitable shelter for the stone upon which Captain Baudin's carpenter had commemorated the visit of the French vessel "Geographe" to Hog Bay was taken up strongly by Mrs. Bertha Stow, the mistress of the Penneshaw School at Hog Bay, and by her energy a sum of money was subscribed. The French Geographical Society contributed 100 francs and the Government of South Australia promised to provide pound for pound on the subscriptions raised.

Finally, it fell to me to carry out the necessary work, which has been done by erecting a domed structure of hard

(1) This cove is where Hog Bay Jetty is situated.

(2) Antechamber Bay.

(3) Cape Willoughby.

(4) Now known as American River.

brick, cemented over, with three wrought iron grills facing the sea on the northern side, one of which is hinged to allow of periodical visits to the stone, and to apply preservatives. A gun metal plate has been fixed with the words "Frenchman's Rock, 1803. Erected by subscription, subsidised by Government, 1906."

While the workmen were on the island it was suggested by Mrs. Stow that it was a good opportunity to erect some permanent monument of a cheap nature as close as possible to the position on the headland where it is generally supposed that Captain Flinders in 1802 first landed on Kangaroo Island. Accordingly, after viewing the several little headlands to the eastward and adjoining Kangaroo Head, it was decided to select the first small headland next to the Head, as there was at that spot probably the most suitable landing-place; and it is thought that there in all probability Captain Flinders landed. The people round about were asked to lend a hand, and the two Government men, with a number of the residents and school children, set to work, and on a Saturday a solid cairn of stones, picked up in the neighborhood, was erected. It has a diameter of something over 6 ft., is 11 ft. high, and has a piece of cut stone let into the front, announcing the fact that this is the supposed site of the locality where Captain Flinders, R.N., first landed on Kangaroo Island.

The cairn has been roughly whitewashed, and can be seen distinctly by vessels entering and leaving the gulf by Backstairs Passage.

The cairn supplies a long-felt want, as nothing had been done previously to mark this interesting spot in connection with the earliest history of South Australia. It is supposed that it was from this spot that Captain Flinders saw and named Mount Lofty.

FORM NO. 1.

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# The Royal Geographical Society of Australasia.

SOUTH AUSTRALIAN BRANCH.

---

## CERTIFICATE OF A CANDIDATE FOR ELECTION.

---

Name.....

Qualification or Occupation.....

Address .....

being desirous of admission into the South Australian Branch  
of the ROYAL GEOGRAPHICAL SOCIETY OF AUSTRALASIA,  
we, the undersigned members of the Society, propose and  
recommend him as a proper person to become a member  
thereof.

Dated this..... day of..... 190 .

Form of Legacy.

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£

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I HEREBY BEQUEATH to the ROYAL GEOGRAPHICAL  
SOCIETY OF AUSTRALASIA (South Australian Branch), the  
sum of .....

to be devoted to the objects of the Society; and the receipt  
of the Honorary Treasurer of the said Society shall be a  
sufficient discharge for same.

ADELAIDE:  
PRINTED BY VARDON & SONS LIMITED,  
GRESHAM-STREET.

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1906.



John Ainsworth Horrocks  
eldest son of Peter Horrocks  
of Penwortham Lodge Lancashire  
England

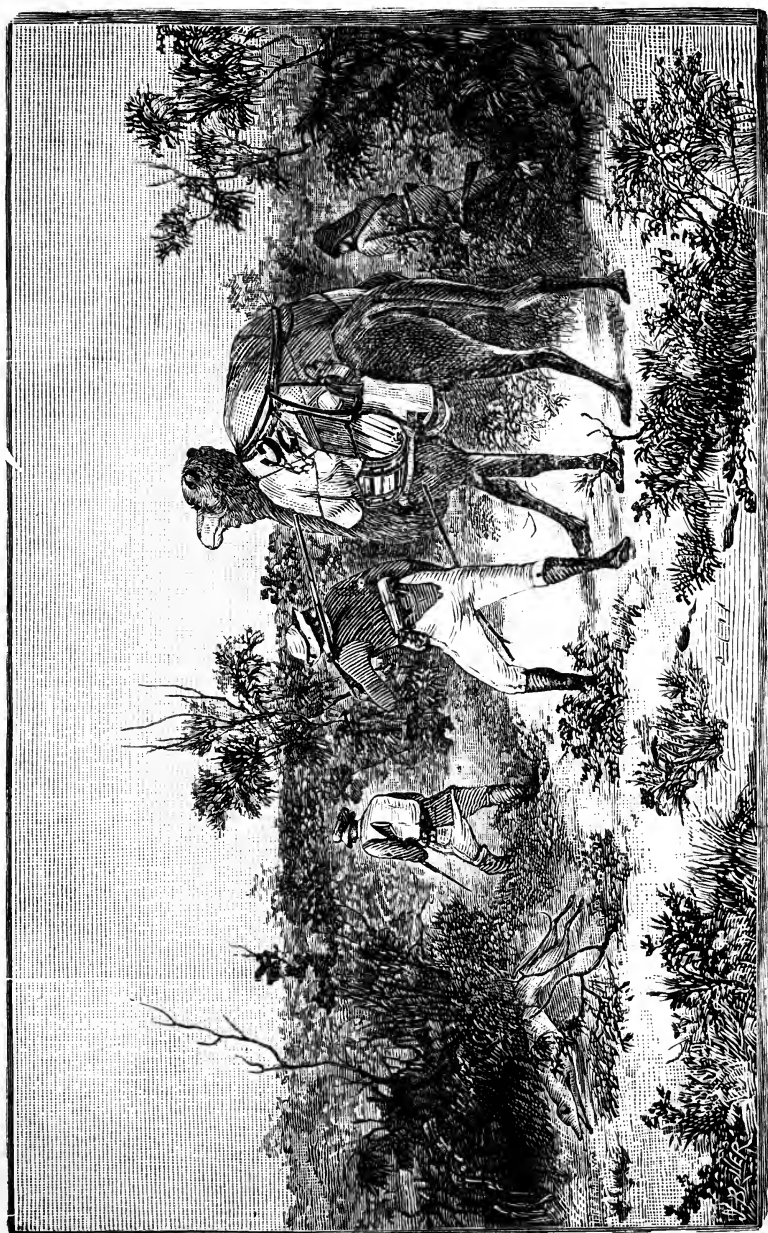
Died in South Australia  
1846

Aged 20 years.

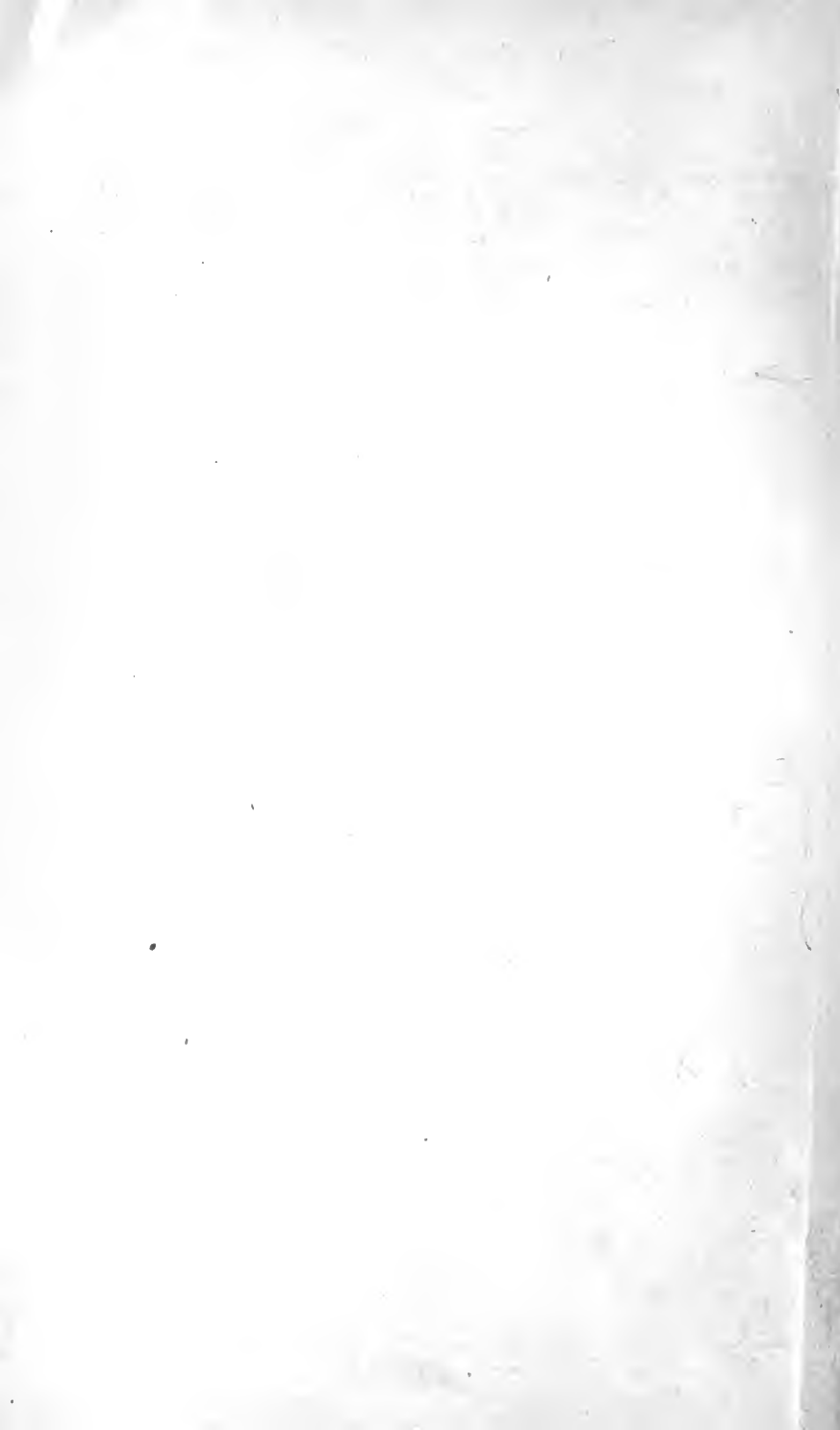
Copied from a photo by  
Colonel Temple 60 Rifles

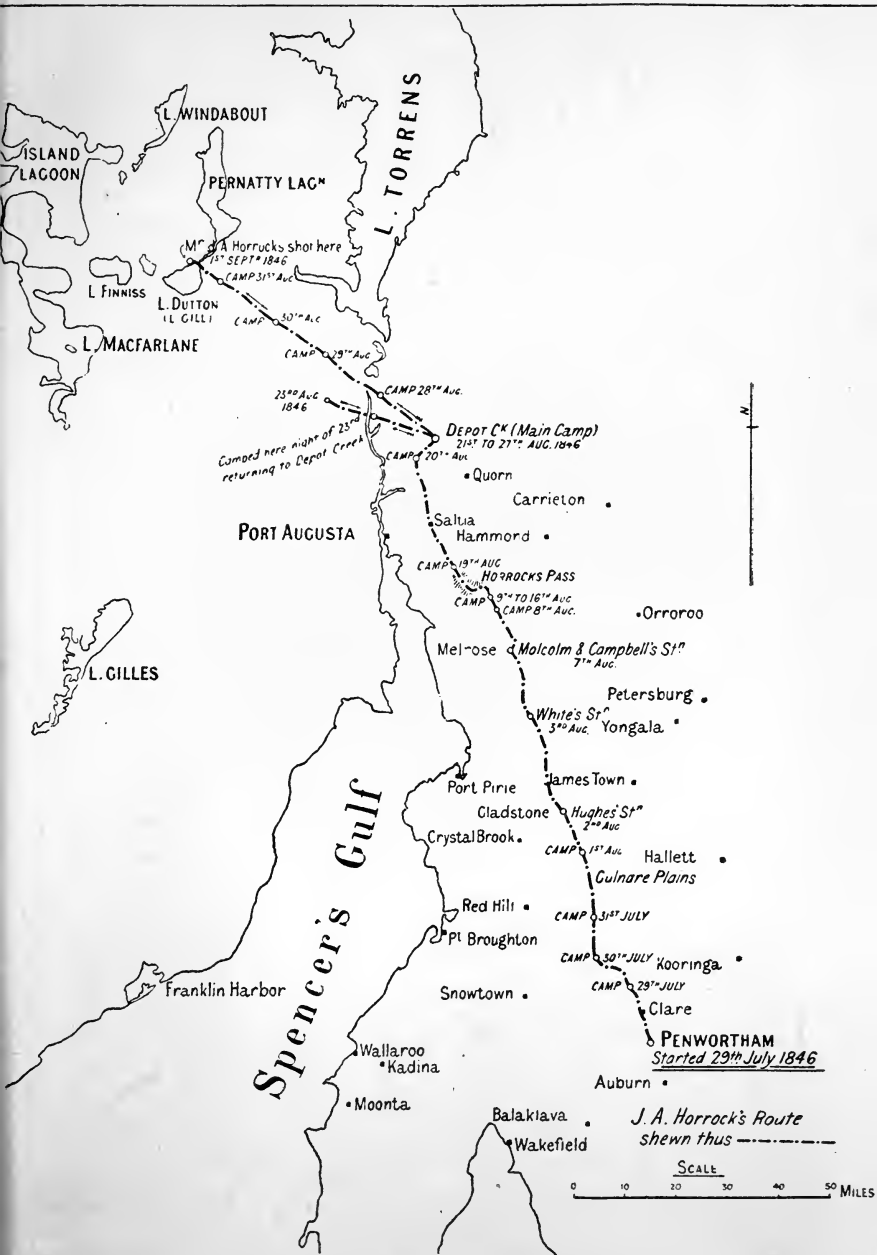






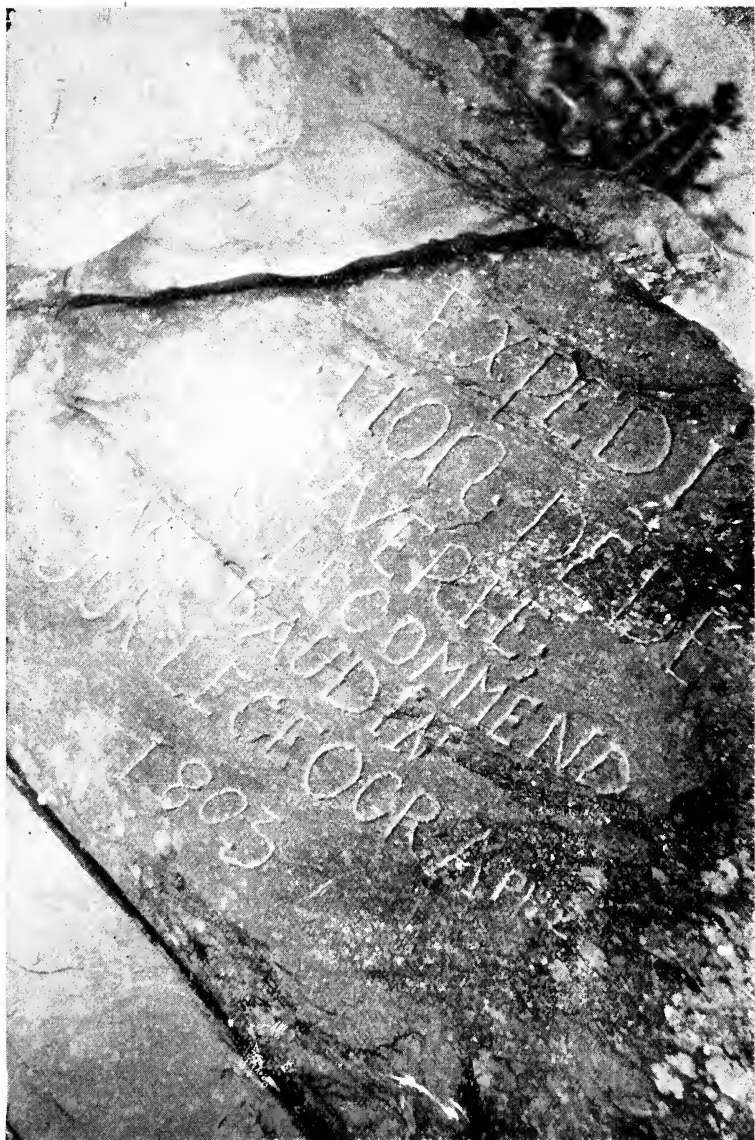
J. A. HORROCKS'S EXPLORING PARTY.





ROUTE TAKEN BY J. A. HORROCKS.





FRENCHMAN'S (BAUDIN'S) ROCK.









E.M. 5-6-67

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